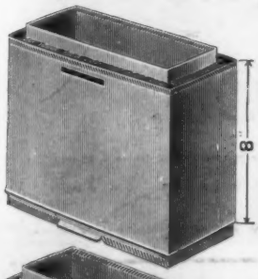
EC 16 1912

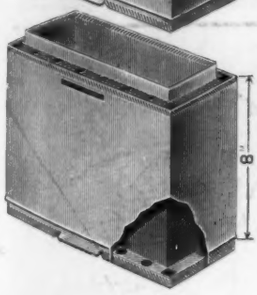
AMERICAN ARTISAN and Hardware Record

64. No. 24. CHICAGO, DECEMBER 14, 1912. $2.00 Per Year.

Michigan Safety Furnace Pipe Ready to Connect

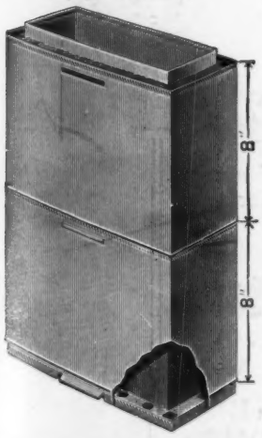
SEE THAT SLOT





SEE THAT HOOK

Michigan Safety Furnace Pipe Locked



MICHIGAN

Safety Furnace Pipe

IS NOW MADE WITH AN

Automatic Locking Device

(Patent Pending)

A genuine lock—not a slip joint. The pipe is connected and locked at the same time, and when locked it is impossible for the sections to fall apart. The real value of this feature can best be realized when installing wall pipe in old houses. It means an actual **saving of 50% in the time** for installing.

When you install Michigan Safety Furnace Pipe, you can leave your tools and solder in the shop.

A stack of **Michigan Pipe** (when locked) may be tipped slightly and still both walls would remain connected. You can see how well the sections fit if you'll send for a free sample today. Write us direct or ask any first class jobber of furnace supplies.

Manufactured only by the

Michigan Safety Furnace Pipe Co.

COR. BROOKLYN AND ABBOTT STREETS

Detroit, Michigan

DEC 17 1912 LIBRARY OF CONGRESS PERIODICAL

ALPHABETICAL INDEX AND CLASSIFIED LIST OF ADVERTISERS, PAGES 94 AND 95

The GILT EDGE All Cast Iron Warm Air Furnace

is a powerful and durable heater, built on common-sense principles and without "frills." This furnace has few parts and is equipped with an unusually large radiator.

The Gilt Edge All Cast is a furnace that saves fuel for the consumer, leaves good profits for the dealer and gives genuine satisfaction all around. It is the means of a bigger and better furnace business for you during 1913.

Our proposition to dealers never fails to interest. Better send for a new catalog and ask about the exclusive agency. ***DO IT TODAY.***

R. J. SCHWAB & SONS CO.

293 Clinton Street **MILWAUKEE, WIS.**

It's the Combustion That Counts

No matter how the circulating flues or radiating surfaces are arranged, unless there is a perfect combustion of all the by-products of the fuel, the stove is a failure. By the by-products of coal we refer to the smoke, soot and gases which, in every base burner are wasted and lost—passing up the chimney unburned.

We claim and **we will prove** that the

Searchlight Utility

Return Flue Floor Heater

is the **only genuine** base burner on earth. It is equipped with the **J. B. HOWARD COMBUSTION** (patented). This device supplies the fire with a sufficient quality of highly heated oxygen, which mixes with the gases, smoke and soot, and in so doing it turns them into roaring blue flames. This is no secret process, nor is there any mystery connected with it. The effect of this heated oxygen on the gases may be plainly seen thru the mica doors in front.

It gives one the impression that gas is being forced on the fire, when it is in reality the air we breath.

A "star" feature of the **Searchlight** is the great variety of sizes of coal it will burn—pea, chestnut, stove, egg and furnace sizes, and also **coke.**

May we lay before you forty other points equally as important as the combustion, that will convince you of the supremacy of the **Searchlight Utility?**

J. B. Howard, Inventor Pointing to the Combustion Damper

Send for particulars and agency proposition at once. Exclusive agency guaranteed.

The Utility Stove and Range Co.

216 Board of Trade Bldg.
INDIANAPOLIS, INDIANA

Another New One for THE FOSTER LINE

For many years there has been a demand for steel ranges. Many were sold and as long as good material was used in their construction they gave satisfaction. Unfortunately however a steel range made of light and flimsy steel looks as good as the very best. Knowing this, some firms have been selling steel ranges that became absolutely worthless after four or five years of service. So many people have been stung in this manner that the trend of the trade is now strongly to cast ranges. There is wisdom in this course as ranges made from cast iron are always heavy enough to last for years and should an oven plate become damaged a new one can be substituted at small expense and your range is as good as new, whereas a steel range under similar conditions becomes worthless and must be thrown away. Appreciating these facts we take pleasure in introducing our new cast range—

FOSTER'S HIGH GRADE

The following features will strongly recommend it:

An oven large, perfectly square and very high;

A fire box large enough to bank and hold fire over night when desired;

Flues large enough to successfully burn any kind of fuel and so nicely proportioned that perfect baking is assured;

All parts directly exposed to the fire are double strength;

The fire linings can be replaced without disconnecting water front;

One simmering or sectional lid in three pieces;

A large nickel plated towel rod running full length of range;

A thoroughly reliable oven thermometer with brass case;

A cast iron reservoir with white porcelain lining;

Reservoir covers neatly japanned and baked;

A high closet made of 26 gauge "Wellsville" polished blue sheet steel handsomely ornamented with bright nickel plated trimmings, and many other too numerous to mention.

A request for prices places you under no obligatian to buy.

THE FOSTER STOVE CO.

IRONTON, OHIO

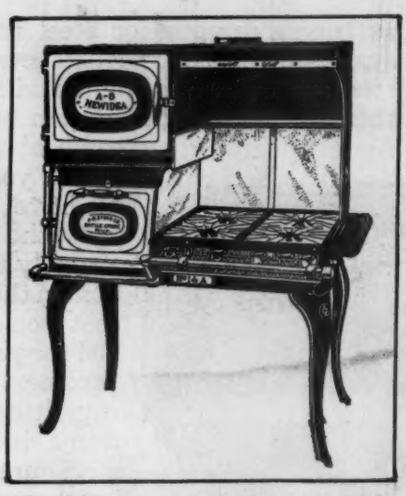
Makers of

THE FOSTER LINE

A-B New Idea Gas Ranges

EMBODY ALL NEW IDEAS—
THE KIND THAT *SELL* RANGES

THE women will like this range for more than one reason. It's compact and handy. Large roomy ovens, and plenty of space on top for cooking. White enamel on back and sides of canopy gives that clean sanitary finish. Just show this range to your trade. It's trade-winner.



THIS range is known as our No. 14 (Regular). While it is practically a new range, it has enjoyed a tremendous sale everywhere. It seems to be just what the dealers are looking for. Orders show that. Popular priced, attractive and reliable. What could **you** do with a good live line of modern gas ranges?

WRITE FOR OUR SPECIAL FALL PROPOSITION

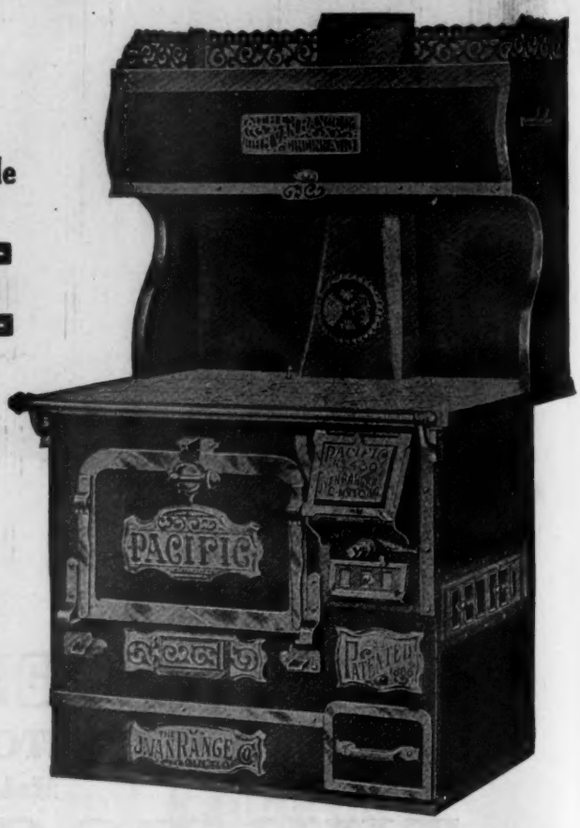
A-B STOVE COMPANY

Battle Creek, Michigan

VAN'S

Patent Improved, Wrought Steel, Portable

RANGE



For Hotels, Restaurants, Public Institutions, Boarding Houses and Private Families.

All kinds of Hotel Implements for culinary purposes.

We manufacture a complete line of Ranges, all sizes, and for every purpose.

Write for catalog and full particulars in regard to our new selling plan.

THE JOHN VAN RANGE CO., Southwest Corner Fifth and Broadway **Cincinnati, Ohio**

HOME COMFORT
STEEL HOT-AIR FURNACE
HAPPINESS
IT LIGHTS THE WAY
PRODUCT
OF THE
WROUGHT IRON RANGE CO.
ST. LOUIS, U.S.A.
FOUNDED
1857
CAPITAL
1,000,000.00

K

The KELSEY

With the Zig

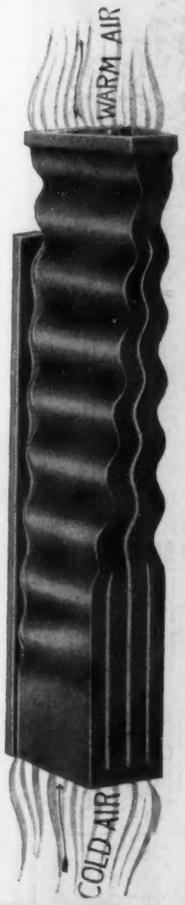
Have You Ever Examined The Kelsey Construction to KNOW how different it is from any other heater, and WHY it has the greatest and most effective heating surfaces and warms and distributes air by the best method?

K

K

GENERATOR

Zig-Zag Heat Tubes



If you are interested

in doing the highest grade of Warm Air Heating and Ventilating it will surely be to your interest to INVESTIGATE the good reasons for the efficiency and economy of the Kelsey Warm Air Generator which are based on the following:

(1) Its superior construction with the Zig-Zag Heat Tubes or Sections.

(2) The great heating surfaces of these tubes and their weight.

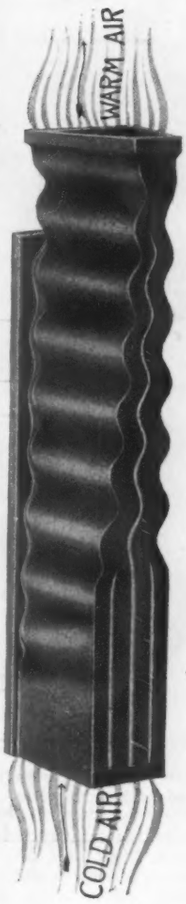
(3) The method of warming large volumes of fresh air moderately and properly by passing in separate currents through these heat tubes.

(4) The even, positive circulation of the warm air currents which may be controlled and forced to distant and exposed rooms.

(5) Most economical use of fuel, because the Heat Tubes being in direct contact with and overhanging the fire, and the air being most effectively brought into contact with the Heat Tubes, all the heat is utilized.

(6) Ease of management, low repair expense, and actual results secured during the 23 years it has been in use.

There are 8 to 16 Heat Tubes in each Generator according to its size. Each Heat Tube weighs 70 pounds and has 8 to 9 sq. ft. of heating surfaces.



The Kelsey is an Exclusive Proposition

with **many advantages** and SELLING POINTS that enables dealers to close profitable contracts for heating and ventilating fine residences, churches and schools, and Kelsey Results build business as evidenced by the 45,000 sold to home owners.

For 1913 why not secure the Kelsey Agency

and let us co-operate with you in getting the good business?

Send NOW for Kelsey Booklets

so that you may know what the Kelsey is and what it accomplishes.

KELSEY HEATING COMPANY

SYRACUSE, N. Y.

156 Fifth Avenue, New York **Sold direct to all the trade**

K

Have You Investigated THE SQUARE POT LINE OF WARM AIR FURNACES?

BOYNTON'S SQUARE POT ADMIRAL

This is an illustration of Boynton's Square Pot Admiral Furnace, the greatest hard coal and wood furnace on the market. The Admiral is fitted with large feed doors built in two sections, high ash pit, and the famous square fire pot. Examine each feature of the Admiral carefully and write at once for illustrated catalog and price list.

BOYNTON'S CRUSADER STEEL DOME

and

ADMIRAL FURNACES

Are ALL made with

Boynton's Patent Square Pot and Base

A square ash pit at back, cleans easily. All grate bars of equal length and motion. These points alone will interest your trade.

Better start the new year with a live line. Ask us about the exclusive sale and how we help our agents land the sales.

During the past sixty years we have made thousands of dealers prosperous, simply because we convinced them that we have the "goods."

WHY NOT INVESTIGATE?

BOYNTON FURNACE CO.

NEW YORK **CHICAGO** **JERSEY CITY**

Invader Furnace

Brand New High Grade All Cast Furnace with Tubular Radiator

WE can safely say that no furnace of this style on the market is superior in any point of construction. All the care in manufacture which has distinguished the goods of this house for seventy-six years has been put into this furnace. We assure the trade that the new **INVADER WARM AIR FURNACE** is the **VERY BEST FURNACE** we have ever turned out and our customers will readily appreciate what this means.

The feed mouth is large. The ash pit is a feature in itself. The opening of the ash pit door exposing the grate bars and making their removal extremely simple; the ash pit is exceptionally large and deep. The fire pot in two sections allowing for expansion and contraction. The radiator is provided with two cleanouts with doors, one in front and the other in the rear. Provision is made in front of furnace for spuds for hot water connection. Made in three sizes—Nos. 1360, 1400 and 1440.

WRITE FOR PRICES AND FURTHER PARTICULARS

The Union Stove Works

Manufacturers of Stoves, Ranges, Furnaces, Gas Ranges

70 Beekman and 66-68 Gold Sts., NEW YORK

Smith's HERO Ventilating School Room Heater

For heating and ventilating school rooms, churches, stores, lodge-halls, auditoriums, and especially adapted for rooms where there is no basement.

Dealers, Attention!

Do you realize that there are several hundred thousand country school houses in the United States, in which the only means of heating and ventilating consists of an old style "cannon" stove? The stove usually heats one end of the room while the other end is cold and affords no means of ventilation whatever.

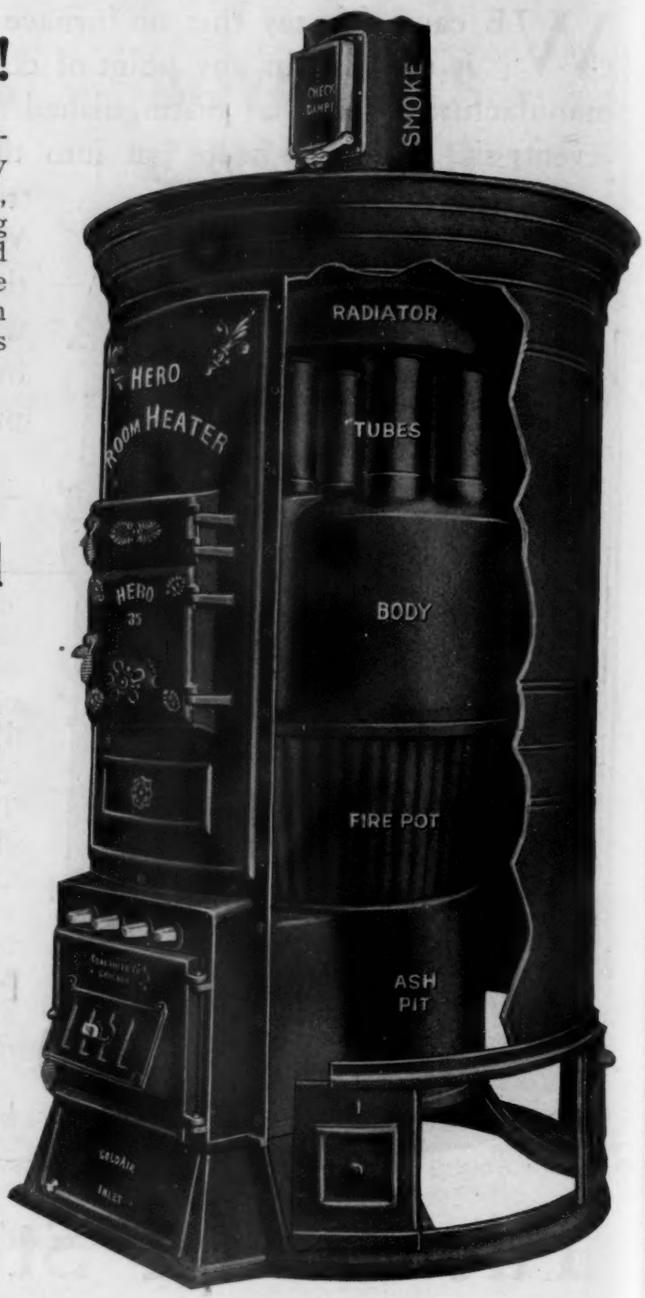
Just see the field there is for

Smith's HERO Ventilating School Room Heater

It is not necessary to carry a stock of these heaters. Send us information as to the length, breadth, height of ceiling, location and size of chimney, amount of exposure to wind, and size and number of windows. We'll do the rest.

We will send free to dealers a full size blue print, mounted on canvas, on a roller (similar to a map), so you can explain to those interested just as well as though you had the heater before you.

Better start early. It's going to be a cold winter—the best time to talk "heat." Write for Catalogues today.



CHAS. SMITH CO.

57 W. Lake St. CHICAGO, ILL.

The Merits of the Robinson Line

are the great number of exclusive features which we have perfected and patented. By means of these we are enabled to construct furnaces on correct and thoroughly tested principles; with a result that our furnaces produce the greatest amount of heat from the smallest amount of fuel. No expense has been spared to make the ROBINSON LINE the most powerful furnaces on the market and to make them embody the most advanced ideas of economy in fuel.

The ROBINSON Tubular Furnace

shown here is the only tubular furnace that has a direct draft as well as a full revertible flue. It has an unusually large radiating surface. The large smoke box has a direct damper. The arrows in the picture indicate the course of the smoke after leaving the firepot on its way to the chimney. The fire travels farther in our **Tubular Furnace** than in others, and this adds to the heating capacity, also reduces the coal bill. The damper can be opened when starting a new fire or when reviving an old one, but is at all times closed thereby forcing combustion twice around the radiator.

THE ROBINSON TUBULAR

The ROBINSON Hot Blast Furnace

is another premier of the furnace field. It is equipped with our patented hot blast firepot. Burns all the cheaper grades of soft coal, slack and lignite. A cast iron radiator, broad and deep ash pit, corrugated dome and large feed door. We guarantee satisfaction with the **HOT BLAST.**

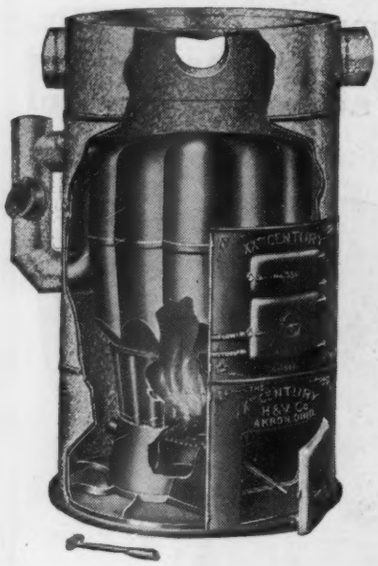
The ROBINSON Furnaces are a money making line for the dealer. A new catalog contains facts and figures that will astonish you. Send for it.

ROBINSON FURNACE COMPANY

65-67 W. LAKE STREET CHICAGO, ILLINOIS

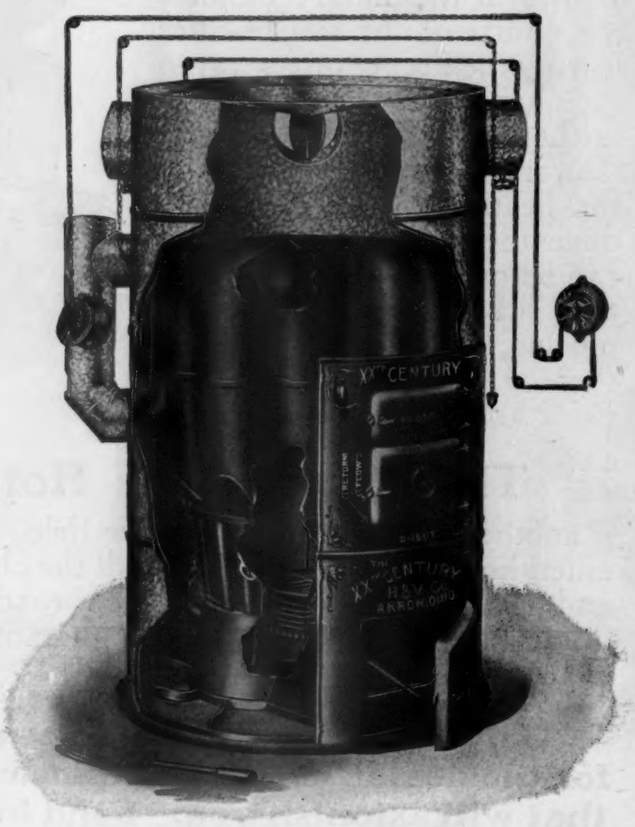
XXth CENTURY FURNACES

are made of heavy iron castings and with the fewest possible number of parts. Deep set cup joints insure against any leakage of smoke or gas.



A new and most unique system of feeding highly heated oxygen to the fire makes them the most economical furnaces on the market today. By means of this process all of the smoke and gas is utilized---turned into heat.

XXth Century Furnaces have no clumsy radiators to fill with soot or block the flow of warm air. A dome section with perpendicular sides makes the furnace **self-cleaning.** Has a straight cast iron front frame, making it easy to case up, and many common-sense features that make it appeal to the practical experienced furnace dealer.



Have you our catalog? In writing for it, mention whether we have an agency in your town. We'll send full particulars by return mail. Start the ball rolling—write today.

The XXth Century Heating & Ventilating Co.

AKRON, OHIO

THE PYRAMID FURNACE

is equipped with the famous **Pyramid Grate.** This new grate will appeal to you if you are familiar with the faults and weaknesses of other furnaces. Burns any kind of fuel. But with soft coal or the cheaper grades of slack and "mine run" it will produce as much heat as the ordinary furnace burning the same amount of hard coal. Let us describe in a few words the principles of

The Pyramid Grate

The grate lies flat. When new fuel is supplied, the long lever at the side is moved slightly forward. This raises the center of the grate and forces the red hot coals against the walls of the firepot, leaving a space in the middle of the fire for the fresh fuel. When the new coal is added it is then surrounded by a ring of red hot coals. All gases and smoke, which otherwise would pass up the flue, are now consumed in the combustion chamber before they have a chance to escape.

Every year we furnish hundreds of Pyramid Furnaces that go into homes where ordinary furnaces have failed. The big issue of the day is Economy, and that is the strongest point in favor of the Pyramid Furnace.

Let us send you our catalog and prices

Forest City Foundry & Manufacturing Co.

Cleveland Stock Clay | Cleveland Stock Clay

Floral City Furnaces

FLORAL CITY KING

Are Made and Sold on Merit

¶ They are made in 13 distinct styles and in sizes suitable for any class of work.

¶ The two illustrations here given show two popular styles of heaters. Our catalogue shows our complete line and can be had for the asking.

Good Live Dealers Wanted

FLORAL CITY QUEEN

The Monroe Foundry & Furnace Company

MONROE, MICHIGAN

NORTHWESTERN AGENTS: The Roberts Heating & Ventilating Co., Minneapolis, Minn.

The INCREASING DEMAND FOR Ajax and Empire

RED CROSS STOVES & RANGES

warm air furnaces is the best possible proof of their popularity

Larger Dimensions

mean **more capacity** and a corresponding **saving to the dealer** through the use of **smaller sizes** than was formerly required to produce the same amount of heat. Do not overlook this. It is of **great importance.** Made with 18-20-22-24-26 and 28-inch **straight** fire pots.

Write for 1912 Pamphlet illustrating and describing The New Ajax. Also for prices and terms.

RED CROSS STOVES & RANGES

Co-Operative Foundry Co.
ROCHESTER, N. Y.
WESTERN BRANCH
505 So. Clinton St. (PHONE Harrison 6373) **CHICAGO, ILL.**

There's no secret about the popularity of the

"FRONT RANK" STEEL FURNACE

It simply sells easily and **stays sold.** But there's a **reason.**

We have no case on record where a **"Front Rank" Furnace** has worn out. They can't wear out. Made of heavy armor plate with only one seam and riveted closely like a boiler, they are absolutely gas and air tight. Large twin radiators give an exceptionally long flue travel. Positively the cleanest furnace on the market. Specially equipped for burning soft coal.

An army of 14,000 satisfied users in St. Louis alone is a pretty strong endorsement. You can have satisfied customers if you install **"Front Rank" Furnaces.** We guarantee satisfaction.

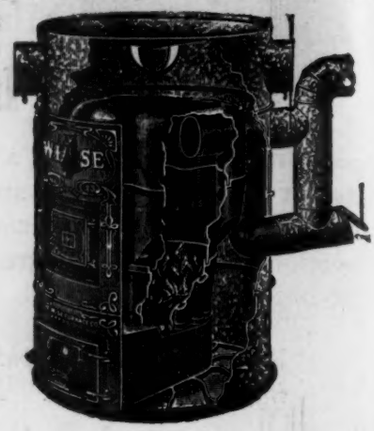
If you are a live progressive dealer, we would like to submit a new proposition to you. May we?

HAYNES-LANGENBERG MANUFACTURING CO.
4045-4057 Forest Park Boulevard, - ST. LOUIS, MO.

The Popularity of the

WISE FURNACE

is due to the fact that we make it ***better*** than we claim it to be. In our catalogues and literature you do ***not*** find those old time-worn phrases "twice the heat from half the coal" and "the largest radiating surface of any furnace of its size."



The **WISE FURNACE** is made of the very best of materials and constructed on tried and true principles, A fire chamber, roomy and absolutely gas-tight, has straight sides—making it self-cleaning. Straight front frame making it easy to case up.

IT'S A BUSINESS BOOMER. Ask for a catalog.

The Wise Furnace Co., Akron, Ohio

BEAR THIS IN MIND—

With the price of hard coal around $9.00 a ton this comingwinter, the demand for high grade soft coal furnaces is bound to **double** that of other years.

Sell the

Hammond Underfeed

Warm Air Furnace

and you will supply your customers with the *most economical soft coal furnace on earth.*

The celebrated **Underfeed** method of feeding fuel *reduces the coal bills 50%.*

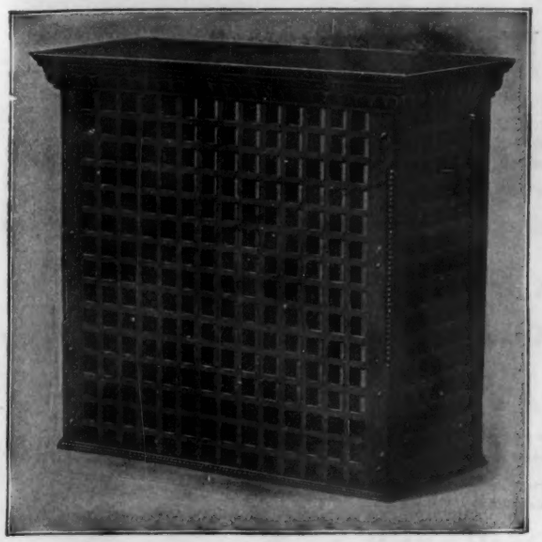
The use of slack and the very cheapest grades of soft coal produce better results than the ordinary furnace burning hard coal. We are glad to prove these statements.

We can help you *double* your present furnace sales. Ask us *how* we do it.

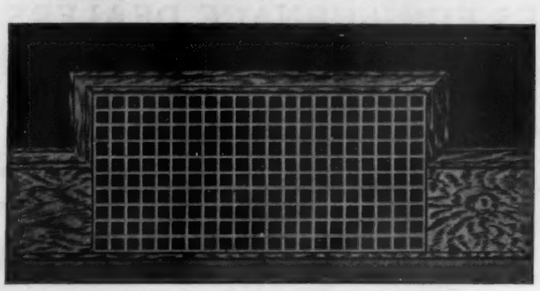
Write today

The Peck-Hammond Co.

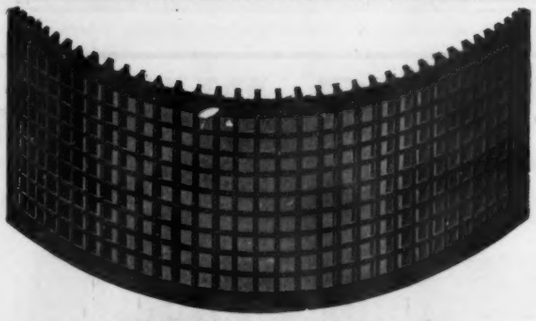
Cincinnati **Ohio**



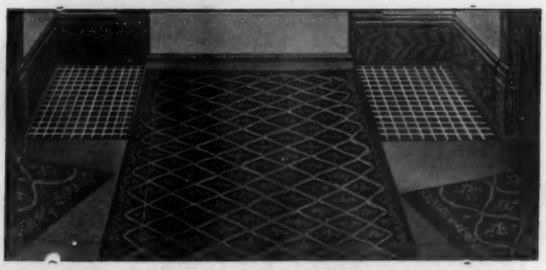
RADIATOR CABINET OR COLD AIR PEDESTAL



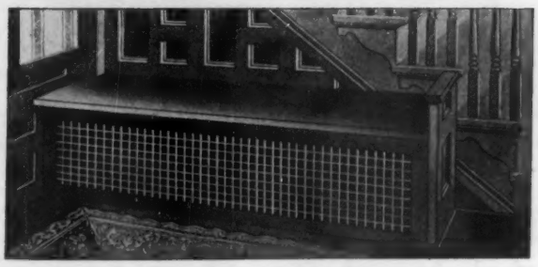
SIDEWALL FACE IN POSITION



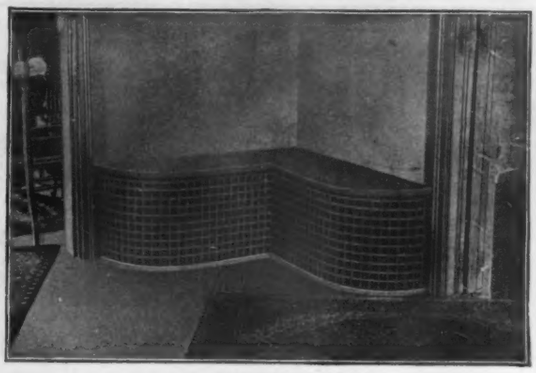
DESIGN IN CONVEX FORM



FLOOR FACE IN POSITION



SEAT FRONT IN POSITION



COZY CORNER SEAT

LOOK GOOD, EH?

How about it, Mr. Furnace Man, don't you think

Padgett Cold Air Faces

used in these various ways and positions, show up pretty well?

Isn't it a fact that they are far handsomer in appearance and much more in keeping with the other fixtures of a room than iron or steel goods?

And aren't they adaptable to many places and positions where you couldn't think of using iron and steel goods?

You will pretty near have to answer "yes" to all of these questions, for ***PADGETT FACES*** are far and away ahead of anything else in this line on the market.

Over Six Million pieces in use and installed in the most up-to-date residences, churches and other public buildings through out the U. S.

We can make these goods to fill any space or shape desired, and of material to match any interior finish. Our designs are original, all goods are of sufficient weight to insure strength and durability without clumsiness, and our prices are right.

You can count on it, Mr. Furnace Man, ***PADGETT COLD AIR FACES*** will take with your trade, and you ought to handle them.

Think it over and then write us for prices. You will thus get in line for lots of contracts that you ought to land, for ***PADGETT FACES*** are sure trade attracters.

DON'T NEGLECT THIS; WRITE AT ONCE

The Wooden Ventilator Co.

No goods genuine without the Company's stamp; watch for it

Main Office and Factory: EAST PALESTINE, OHIO

Our goods are on sale by all the ***leading*** furnace manufacturers and jobbers of furnace supplies, and installed by all the ***leading*** heating contractors, where artificial heat is used. ***Up-to-date*** people want them.

We Keep

Furnace Men's Supplies

of all kinds, in stock for prompt shipment, at our various branch houses

Special Sizes BRIGHT TIN PLATES for Making Furnace Pipe.
GALVANIZED SHEETS FOR CASINGS
REGISTERS, COLD AIR FACES
ASBESTOS PAPER
AND ALL KINDS OF SUPPLIES FOR FURNACE DEALERS.

Ask nearest branch for catalog and prices

MERCHANT & EVANS COMPANY

(The Premier Metal House in America)
PHILADELPHIA, PA.

NEW YORK
BALTIMORE
CHICAGO
CLEVELAND
BROOKLYN
WHEELING
KANSAS CITY
DENVER

FURNACE CASING RINGS

MADE OF STEEL

are manufactured for less money—are much neater in appearance—and are much *lighter* and *stronger* than the cumbersome and costly cast iron rings.

Use Them—They Will Save You Money

They are made to conform to individual requirements in every respect.

Made to Your Measurements

With Lugs—For Double Casings **Full Circles—For Ordinary Use**
Without Lugs—For Single Casings **Partial Circles—For Full Cast Fronts**

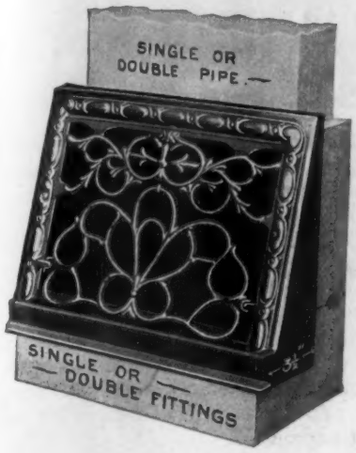
WRITE FOR PRICES

The Walworth Run-Foundry Company

West 27th St., Filmore and Talcott Aves. and N. Y. C. & St. L. R. R.

Cleveland

Largest Gray Iron Foundries. **Estimates Furnished for Castings.** **Manufacturers of Semi-Steel Registers.**



A CARD OF THANKS

WE are now nearing the close of our most prosperous year. In a short period of two weeks we will enter into 1913. We take this occasion to thank our old standbys and our many new customers during the year. May the Hoo-doo year bring prosperity to all concerned in **Symonds Wall Registers.**

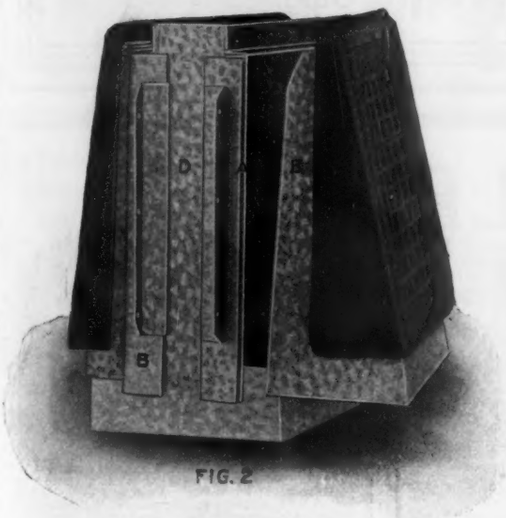
SYMONDS REGISTER CO.

A Card to the Wise

Before stocking up, write us for catalogue and prices. Our superior article and prompt shipments is the secret of our unprecedented success. "TRY US!"

Symonds Register Company 1102-1104 Madison St. ST. LOUIS, MO.

Sanitary Adjustable Register Heads



are the **only** detachable register heads on the market.

They are made of heavy galvanized sheet metal and are absolutely fireproof. **The Adjustable Register Head** is made in sections and will conform with any conditions that may be presented in the construction of buildings.

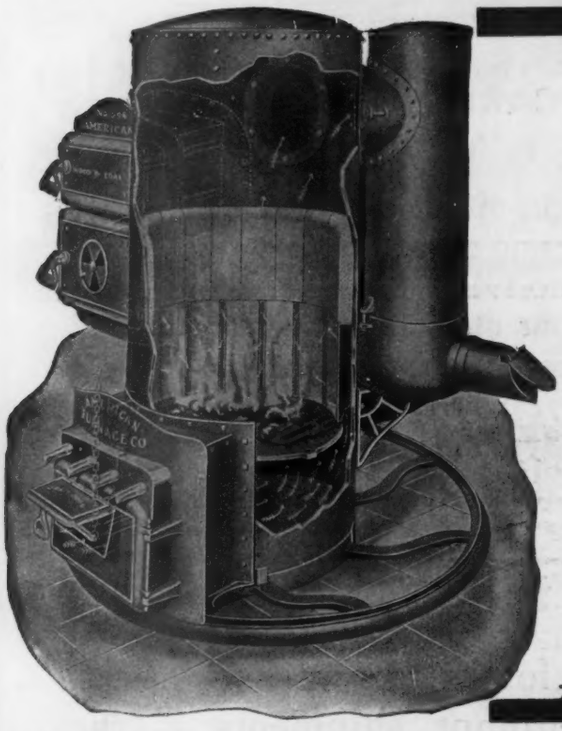
When our **Adjustable Register Head** is properly installed a perfect joint and flush is obtained with the wall. That means no discoloration of wall or paper around the register head. Prevents the escape of warm air.

A register must be cleaned often if there is to be sanitary conditions. **Adjustable Register Heads** are easily cleaned. To remove them, no tools are necessary. Just draw them slightly forward and then lift.

Sanitary Adjustable Register Heads are furnished with the following side wall registers: **"Waterloo," "Favorite"** and **"Carter."**

Waterloo Adjustable Register Head is the **only thing** on the market and we want **you** to be convinced of that. We want you to inspect them closely and verify our claims. Let us send you our new catalog. Mail a postcard **now.**

Waterloo Register Company **Waterloo, Iowa**



The New Air Blast Fire Pot

Burns Soft Coal or Slack

The new **American Furnace with Air Blast Fire Pot** is built on vertical lines, because it is a well-established fact that radiant heat produces no perceptible effect upon air. Air can only be heated by conduction, that is, by direct contact with hot surfaces. The heated air rises in straight currents, and in its ascent keeps in direct contact with the entire surface of the furnace when built as the **American Furnace is,** on vertical lines. A decided advantage over furnaces which are built with uneven or zig-zag surfaces such as most cast iron furnaces have, because the air in ascending only comes in contact with the outer rims, which is not so effective and causes them to crack with unequal expansion.

The **American Furnace** is **Clean, Durable, Economical** and heats with **Warm Air.**

Write today for our new Catalog, it gives full information about the American Furnace

The American Furnace Co.

2725-27-29-31 Morgan St. St. Louis, Mo.

SCHEIBLE FURNACES

are provided with large casings, giving an abundant supply of warm air, rather than a limited supply of very hot air. New ideas, new patterns and new principles. Send for catalogues today. You'll want the agency when you see the new Scheible Furnace.

THE SCHEIBLE-MONCRIEF HEATER CO.

1444 West Ninth Street, Cleveland Ohio

BOOKS FOR SALE

THE Publisher of AMERICAN ARTISAN will take pleasure in supplying books of whatever character, at catalogue prices, prepaid by express, to any address, on receipt of price. The following are lines specially represented:

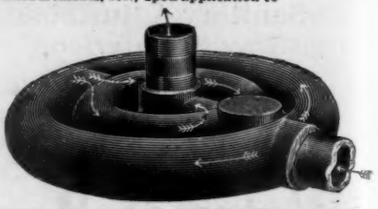
Sheet Metal Working. The Foundry.
The Workshop. Heating and Ventilating.
Plumbing and Drainage.
The Store and Office.

Send for Book Catalog

DANIEL STERN,
PUBLISHER AND BOOKSELLER
537 South Dearborn Street, CHICAGO

The Champion Combination Hot Water Boiler

One or more sections can be used together according to the amount of radiation to be used. The fire passing through spaces between rings in each section and over their large surfaces permits the direct action of the fire to come in contact with each section, making a powerful and effective heater. CHAMPION BOILERS are tested 100 pounds hydraulic pressure before leaving the factory and are guaranteed not to leak. Will increase every dealer's business who handles them. Prices, measurements, etc., upon application to



Frank D. Stolz Co.
Manufacturers
1210 Webster Ave. Chicago, Ill.

"ALAMO" Furnaces and Hot Water Specialties for Combination Heating

CHARLES SMITH, 24 West Lake Street, Chicago, Illinois

YANKEE All-Steel DAMPERS and CLIPS

for Stove-Pipe and Furnace-Pipe

Made only by

The S. M. Howes Co.
BOSTON, MASS.

Getting business is easy when you have a good article to sell.

The Moncrief
FURNACE

will aid you wonderfully in building up your trade.

MANUFACTURED ONLY BY
The T. E. HENRY FURNACE CO.
Cleveland
Stock Co.

YOU

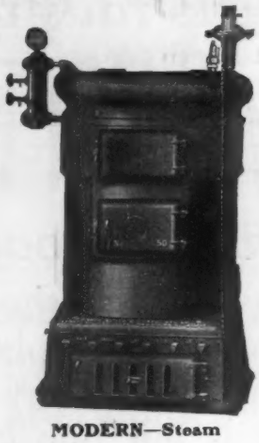
Need a Tinner, Furnace Man or Hardware Clerk? A want ad in

AMERICAN ARTISAN

That's all that's necessary to solve the problem.

"K-M-C"

Modern Boiler
For Steam and Water



MODERN—Steam

Made of best grade iron—
Simple in construction—
Easy to erect—
Will burn any fuel—
Requires little attention, and with ordinary care will last as long as the building in which it is installed.

A boiler with many talking points that will appeal to your customers.

Send for MODERN Booklet

Kellogg-Mackay Company
Heating and Plumbing Supplies
Minneapolis Chicago Seattle

GO AFTER IT

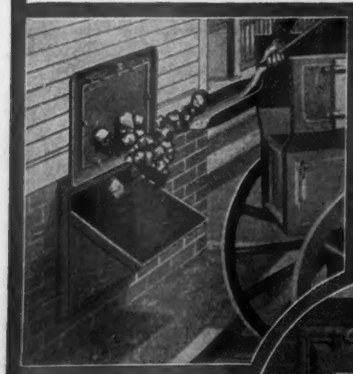
The agency for the furnace built on new principles—the best furnace on earth.

Sprague Underfeed Furnace

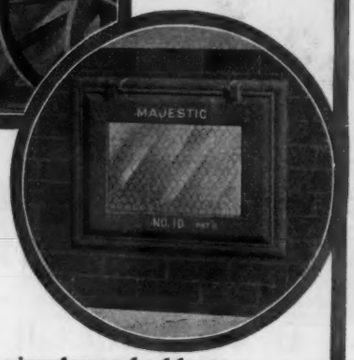
For fuel economy it has no equal. The new **Underfeed Grate** will surely interest your trade. Send to-day for descriptive matter and prices to the trade. Also ask about special inducements to agents.

Sprague Foundry & Mfg. Co.
COUNCIL BLUFFS, IOWA

MAJESTIC FOUNDATION COAL CHUTE



¶ Protects the building just where most needed — above the opening. ¶ The heavy steel hopper catches all the coal.



¶ When not in use, the hopper lies in the bottom of the chute body. ¶ The door locks automatically either open or closed. Strictly burglar-proof ¶ With ¼-inch wire glass or steel panel in door.

Write for circular and address of nearest dealer.

MAJESTIC FURNACE CO.
Chute Department Huntington, Indiana

Use Gas, Coal or Wood in This Range

ARE YOU ACQUAINTED WITH IT?

If you are, you are selling it. If not you are missing the greatest selling proposition ever offered to you.

The Champion Interchangeable GAS and COAL RANGE

Can change from gas to coal in 3 seconds.
Greatest seller ever placed on the market.
Write for catalog telling all about it.

THE CHAMPION STOVE CO., Cleveland Stock City

The Sheet Metal Worker—Be He Apprentice or Journeyman—who fails to secure a copy of

THE

"XXth Century Sheet Metal Worker"

is overlooking a mighty good thing.

It is new, modern, practical—the work of an experienced sheet metal worker—and told in plain, every-day language, without any frills or trimmings of any kind. In all its eighty-six valuable pages there is not one complicated, long-drawn-out explanation, not one mystifying, scientific rule. But there is an abundance of "short cuts," instantaneous helps and suggestions for all kinds of sheet metal work, both simple and complicated—ALSO—illustrated problems and designs with practical descriptions and explanations.

The "XXth Century Sheet Metal Worker" is furnished in two bindings, $1.00 cloth bound, and 60c is for the flexible cover.

FOR SALE BY ALL BOOK SELLERS OR BY

THE AMERICAN ARTISAN AND HARDWARE RECORD

537 SOUTH DEARBORN STREET, CHICAGO, ILL.

Munsell's Mica

EUGENE MUNSELL & CO.

NEW YORK
68 Church Street

CHICAGO
542 S. Dearborn St.

AND LEADING JOBBERS EVERYWHERE

THE STANDARD FOR HIGH GRADE STOVES

Black Silk

Stove Polish
Metal Polish
Iron Enamel

"A Shine In Every Drop"

Buy Through Your Jobber

Black Silk Stove Polish Works, Sterling, Ill.

YALE

Russia finish, pat. Lock

STOVE PIPE

It is made of a very high grade of uniform color Blue Polished Steel and is coated to prevent rusting. **Made in all sizes.** Packed twenty-five and fifty joints to crate. For sale by the Jobbing Hardware Trade throughout the United States.

Mfd. by HEMP & CO. ST. LOUIS, MO.

In the event of your jobber does not handle this pipe send your inquiries to us.

PEERLESS ENAMEL

GLOSS BLACK

for STOVE PIPES AND ALL SHEET IRON WORK

ALUMINUM

for RADIATORS, PIPES, ETC.

Handled By All Leading Jobbers. *Samples Free On Request*

NICKEL PLATE STOVE POLISH CO., Mfrs.

CHICAGO

THE GEO. W. COPE STOVE PATTERN WORKS

COR. BRUSH AND WOODBRIDGE Sts.

DETROIT, MICHIGAN

REPAIRS FOR ANY AND ALL

Stoves, Ranges AND **Furnaces**

can be sent you on double-quick time if you send your order to **Brauer.** We boast of the largest Repair stock in the country, and have shipping facilities unequaled by none. One trial convinces.

A. G. BRAUER SUPPLY CO.

316-318 N. Third Street - ST. LOUIS, MO.

PATTERNS

FOR STOVES AND HEATERS
First-Class in Wood and Iron

VEDDER PATTERN WORKS

Established 1835 TROY, N. Y.

The COOPER Oven Thermometer Co.,

Pequabuck, Conn.,

MANUFACTURERS OF

OVEN THERMOMETERS

for indicating heat of ovens of

Wood, Coal, Gas, Oil and Electric

Stoves and Ranges

(One-half actual size.)

PATTERNS

For Stoves and Heaters

The Cleveland Castings Pattern Co.

Cleveland Ohio

WELLER PATTERN CO.

DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS

QUINCY, ILL.

QUINCY PATTERN CO.

IRON & WOOD STOVE PATTERNS

QUINCY, ILL.

Splendid Opportunity

to make money on the side, soliciting subscriptions for AMERICAN ARTISAN, for wide-awake men. Liberal cash commission. Terms on application.

AMERICAN ARTISAN
537 So. Dearborn St., Chicago, Illinois

1913 **Estate** 1913

Radiant *Model "E"*

—the Master Base Burner

FOUR FLUES
arranged to form a double duplex system

HOT-AIR FURNACE
built *into* the stove

PATENTED JOINTLESS ASH-BOX

QUICK-DETACHABLE BOLTLESS NICKEL

THE FIRST Four-Flue Base Burner—bigger, more powerful, more efficient, and better in every way, than any base burner now on the market—is ready for delivery. The mere announcement of its new and original constructive features will be sufficient to lead all progressive stove dealers to make an immediate investigation.

STEVE—the Estate Advertising Man

Send for literature at once

The Estate Stove Company

Successor to F. & L. Kahn & Bros.

House founded in 1845 **HAMILTON, OHIO**

ESTATE STOVES HOUSE FOUNDED A.D. 1845 BEST SINCE 1845

ESTABLISHED 1880.

AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00. FOREIGN COUNTRIES, ONE YEAR, POSTAGE PAID, $4.00. CANADA, ONE YEAR, POSTAGE PAID, $3.00.

Address all Letters, Communications, and Remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,

537 SOUTH DEARBORN STREET, CHICAGO, ILL.

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

CHICAGO, DECEMBER 14, 1912.

THE PUBLISHER TAKES PLEASURE IN MAKING THE ANNOUNCEMENT THAT AMERICAN ARTISAN AND HARDWARE RECORD WILL BE SENT FREE OF CHARGE FOR THE REMAINDER OF 1912 TO NEW SUBSCRIBERS FOR THE YEAR 1913. YEARLY SUBSCRIPTIONS RECEIVED NOW WILL BE CREDITED TO THE END OF THE YEAR 1913.

The Special Furnace Issue.

THE present year has been one of unusual interest to those engaged in the warm air furnace industry, and the annual review of the furnace situation which occurs in the present issue of AMERICAN ARTISAN should prove decidedly valuable. This Special Furnace issue every year has the particular function of not only awakening an interest which in some cases is decidedly dormant, but of bringing into close touch with each other and thus increasing the co-operation of manufacturers, distributors and installers. To promote such an end to the utmost degree, those actually engaged in the heating and ventilating field were asked for an expression of their opinions on various questions.

It can be easily imagined that to adequately cover the field a very extensive correspondence was carried on. The great majority of those who received communications answered the queries in full, and in many cases gave added valuable information.

The letters received have been printed exactly as they were received, no change having been made in them, although in several instances the names of correspondents are omitted by special request. The sum and substance of the letters form a clear and lucid exposition of the conditions now existing in the furnace industry and the general outlook.

During the past year the Federal Furnace League went out of existence as an organization. Considering the good which the Federal Furnace League has accomplished during its period of life, this would have been a serious blow to the furnace trade in general, were it not for the fact that a new organization of is projected, which body, it is thought, will be much stronger than the old one. Such an association of furnace manufacturers is a consummation greatly to be desired from all standpoints, the principal advantage being that they can concentrate their efforts to meet the competition of steam and hot water heating systems.

Regarding this competition, it is surprising to note from the various replies received that warm air furnaces are not so seriously affected by steam and hot water heating as some individuals would have us believe. In many instances the retailers and installers of furnaces believe that warm air furnaces are gaining in popular favor at a greater rate of increase than the steam and hot water heating systems. Their opinions must be taken seriously into account, for after all the man who has to land the ultimate consumer is the best judge of conditions.

Optimism is the prevailing note sounded. Dealers and furnace manufacturers report a highly prosperous year, and the enormous crops this year, together with the fact that people seem to be getting more educated every day to the advantages of warm air furnace heating, appear to indicate that the sales for the coming year will exceed anything in history.

Taxing of American Firms in Germany.

The general scheme of taxation in Germany is always somewhat of a surprise to American citizens, especially the taxation of American firms, who come to Germany to do business. All foreign firms including individual firms, partnerships and corporations which do business in Germany are subjected to much questioning upon first settling there regarding the amount of the annual profits—and they are afterward notified by the German Government that they have to pay taxes of a considerable amount. Moreover, a branch of any establishment comes under the same ruling and is taxed on the same percentage as if the entire business were located in Germany. This is merely a certain method of protection the German authorities claim, and, of course, no amount of protest on the part of American merchants can overrule the laws on the question.

Many firms, however, evade this taxation by taking orders by mail, wire, or by traveling salesmen. In this manner under the law's interpretation they are not doing business in Germany, and many American firms send dozens of salesmen through the country. An exporting house also—which has big contracts with German firms—can send out salesmen, carrying valuable samples and still evade the taxation law.

The keeping of a large sample room does not constitute doing business, since it comes within the powers of an agent to show goods which he wants to sell at his own profit. An American firm can also keep a large stock within Germany, without being compelled to pay taxes on the profits made through the sale of his goods, provided, of course, he does not specify that

the place where the stock is kept is a branch of his establishment. Another way of evading these difficulties is to form an independent corporation under the laws of Germany. This organization is advisable, however, only for very large concerns on account of the strict rules and the complicated manner of administration under the law. The costs of organization, however, are rather high and increase very rapidly with the amount of capital. The income tax levied on these corporations is very often higher than the income tax levied on individuals. It will be seen, therefore, that a careful study of the taxation system of Germany should be made by any American company which desires to either locate or establish a branch office in that country.

The American Steel Industry.

The mammoth steel industry of this country as a rule furnishes a very accurate and convenient gauge of general business conditions. Owing to the fact that nearly all our principal industrial lines are dependent upon the outlook in iron and steel, naturally a prosperous condition of affairs is reflected widely upon co-ordinate lines. It is very pleasing to note, therefore, the recent report of the United States Steel Corporation, showing that the amount of business now on hand is the largest in the history of that company for this time of the year. Unfilled orders increased 258,593 tons during November, according to the report. This compares with an increase of 1,042,874 during October and indicates some falling off in the demand for steel products which has been almost unprecedented. One of the chief causes of the smaller rate of increase is the fact that the company is now unable to promise deliveries for several months ahead. The total unfilled orders on November 30 amounted to 7,852,882, the largest since early in 1907, when unfilled tonnage exceeded 8,000,000. On November 30, 1911, the orders totaled only 4,141,955. Both October and November set new marks. The production records have established new high marks several times during the present year and since the general outlook seems to promise an increase rather than a diminishing demand, prospects for excellent business in other lines are very bright.

The Best Fuel for Business.

SUPPOSE a man started on a long automobile tour through unfamiliar country with an insufficient supply of gasolene, would he not be the object of ridicule rather than commiseration if his machine became stalled on a dark road ten miles from nowhere? Take the parallel case of a concern or individual attempting to push along something through the byways of business, full of difficult ruts, and discouraging turns, with nothing behind to supply the motive power.

The average person will say that this simile is incorrect, because "money will always make the wheels go round," whereas we refer in the latter instance to advertising; but let every rational being think it over carefully. Gasolene or other power is necessary to make the automobile go. Advertising is absolutely essential for the successful carrying on of any business. Both are fuels, literally speaking, and both are procured through the agency of money.

The automobilist figures carefully the amount of fuel and other supplies which he will require before starting upon his long journey, and if he is wise will also provide additional material for emergency. The modern business man, whether manufacturer, wholesaler or retailer, likewise arranges a sufficient supply of advertising to give his business the required impetus.

The owner of the automobile always gives credit to the fuel which he uses for making his machine go. It may go faster or last longer with a high class engine and mechanical accessories, but that is an entirely different proposition from what fundamentally and primarily causes the pistons of his engine to keep on going. So, knowing this, when he exhausts one tank full of gasolene, he purchases another, and so on indefinitely. The business man, on the other hand, is more or less inclined to withhold credit for the fuel which he uses. He advertises a short time and the wheels of his business move smoothly and efficiently and sometimes he thinks that they will always go on just the same. Such an individual must not forget that if the fuel is not continually supplied, no amount of high class equipment, scientific management, or efficient operation, will enable him to keep his sales up to the mark. It is the fuel—advertising—which is the foundation of his business.

There are many men in active business life who either ignore or dodge the main issue. When they are busy, they have no time to advertise, and when business is bad they cannot afford it. There is something radically wrong in such instances; there is no time when one who expects to maintain a business can afford to cut out advertising. When his business is poor, that is the very time his advertising should be increased.

All this emphasizes the fact that the advertising appropriation is far preferable from a business standpoint to the haphazard, intermittent, "rule of thumb" methods pursued by some advertisers. By fixing the amount of the advertising appropriation at the beginning of his current year, there will be something to base subsequent sales on, and it can be included as a fixed item in the general "overhead expenses," but it must be made elastic so that increase can be made in the advertising when necessary. There are times in the history of any business when it seems necessary to retrench on some of the expenses, but at such periods the advertising expenditure should be one of the last things considered.

If rightly and judiciously applied, advertising will bring the results and achieve the ends and purposes which every manufacturer, jobber or retail advertiser is looking for. These results may make the original appropriation look as absurdly small as a five-horsepower donkey engine in a big steam turbine central station, but the sagacious advertiser increases his advertising to keep pace with his growing business, realizing that the latter is directly dependent upon the former. Isn't it after all a pretty sensible and logical conclusion to figure the advertising appropriation upon a fuel basis?

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

An inventor of Chicago has come to the front with some ideas which will make life really worth living. The newest benefactor to the human race, whose name, by the way, is Milton Peck, is perfecting a set of table utensils which he says will enforce good manners on the part of the most careless or ignorant. The knife has a foil at the end which makes it impossible to insert the blade in the mouth, and is perforated to such an extent that even the largest pea cannot find lodgment on its surface. It is also impossible to spear a piece of pie with it. Spoons which will not remain in the coffee also have been invented. The handles are so heavily weighted that the utensils automatically remove themselves from the cup. The great inventor says his finer sensibilities have been hurt so often by the way some persons tie serviettes around their necks that he has invented a new style of napkin which cannot be raised above the table. He has no model to show of this invention, but has made a rough drawing illustrating how the napkin is made fast to the tablecloth. To get the napkin high enough to tuck it in between the collar and the neck one would have to remove the whole table cover.

* * *

Here is a good one on Frank Gould, sales manager of Henry Disston & Sons, Philadelphia. Special correspondents have dug it up in the west, although Frank himself refuses to discuss it.

A short time Frank Gould was in Minneapolis. In the hotel he met two mutes, with whom he carried on an extensive conversation with the aid of a pad and pencil. The men told him they were going to Chicago.

Some days later Frank was in Chicago, and in a hotel, too. In the lobby he met one of his silent friends of Minneapolis. He got out his pencil and an old envelope and sociably began a correspondence school conversation.

"I see," he wrote, jokingly, "you've got to the big city. You want to be careful and keep away from the cars."

He handed the envelope to the man, who read it. He read it again. Then he looked at Frank strangely. Once again he read the cheerful message. Then he handed it to his companion.

"This guy's crazy," he said, pulling his friend away.

He was *not* the man Frank had met in Minneapolis.

* * *

The following item, taken from *Graphite,* the publication of the Joseph Dixon Crucible Company, Jersey City, New Jersey, is a splendid example of alliterative style, but I really pity the poor printer who had to set it up:

Sir Samuel Simons saw sweet Sarah Samson swimming. Suddenly she seemed sinking. Sir Samuel stood stunned. Striding seaward, spurning shingle, Sir Samuel swiftly swam Sarahward. Sir Samuel skillfully supported swooning Sarah. Swimming shoreward, Sir Samuel successfully succored Sarah. Seeming somewhat shaky, Sir Samuel sampled some spirits—special Scotch.

Sarah saw Sir Samuel's self-sacrificing spirit. Sir Samuel saw Sarah's sweetness. Sir Samuel soon sought Sarah. Striding slowly, Sarah sighed softly. Sir Samuel seemed speechless.

"Say something, Sir Samuel," said Sarah. "Say 'Sam,' Sarah," said Sir Samuel. Sarah, smiling, shyly, softly, said, "Sam." "Sarah-Sally," stammered Sir Samuel. "Sweet Sarah—sweetheart."

Sarah suddenly surrendered.

(Printer's remark: "Please ctop thic; we are chort of eccec.")

* * *

Jerry Donahue of the Wabash Screen Door Company, Chicago, related a good Irish yarn the other day at luncheon, about two Irish lads who had been at school together, but had drifted apart in after life. They met one day and the conversation turned on athletics.

"Did you ever meet my brother Dennis?" asked Pat. "He has just won a gold medal in a marathon race."

"That's fine," said Mike. "But did I ever tell you about my uncle at Balythomas?"

Pat agreed that he could not call him to mind.

"Well," continued Mike, "he's got a gold medal for five miles and one for ten miles, a silver medal for swimming, two cups for wrestling, and a lot of badges for boxing and cycling."

"He must be a great athlete, indade," said Pat.

"You're wrong," cried Mike. "He keeps a pawnshop."

* * *

Alexander Glass of the Wheeling Corrugating Company of Wheeling, West Virginia, had occasion recently to go to St. Louis. He was standing in front of one of the big buildings in that city when a man came out, much the worse for liquor. "What's the name of thish here building?" he asked as he reeled away.

Mr. Glass told him the name of the building.

"Thanks," he said. "I was just in it and I wanted to check it off."

* * *

It seems like a prodigious task to reduce to simple and compact forms the list of mistakes possible for man to make in this world, but Judge Rentoul has succeeded in getting the number down to thirteen and covers the ground pretty thoroughly. His list is as follows:

To attempt to set up our own standard of right and wrong and expect everybody to conform to it.

To try to measure the enjoyment of others by our own.

To expect uniformity of opinion in this world.

To look for judgment and experience in youth.

To expect to mold all dispositions alike.

Not to yield in unimportant trifles.

To look for perfection in our own action.

To worry ourselves and others about what cannot be remedied.

Not to help everybody, whenever, however and wherever we can.

To consider anything impossible which we cannot ourselves perform.

To believe only what our finite minds can grasp.

Not to make allowance for the weakness of others.

To estimate people by some outside quality, for it is that within which makes the man.

NEWS SIFTINGS

The Estate Stove Co., of Hamilton, Ohio, who are planning a $50,000 addition to their plant in that city, have awarded the contract for same to the Bender Company, of Hamilton.

The Wood Shovel & Tool Co., of Piqua, Ohio, have sent out announcements to the trade of the death of Sardius Stuart Gould, vice-president of that company, on Saturday, November 23, at Kansas City, Missouri.

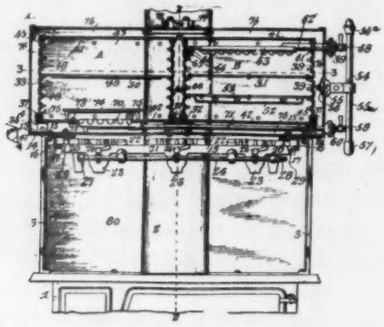
An explosion of natural gas at the Woehrle Stove Works, Newark, Ohio, recently completely "stripped" the principal cupola, shattering nearly all the windows of the plant and knocked down a dozen men, no one, however, being hurt seriously.

The stock of the American Stove Co., who occupy the first floor of the building at 61 North Second Street, Philadelphia, Pennsylvania, was badly damaged by water directed at the building by the fire department of that city recently, in their efforts to check a fire starting on the third floor. The blaze caused more than $50,000 damage.

The stove plant at Dalton, Georgia, is being overhauled and will reopen after the first of January. Dalton and Chattanooga capitalists are interested in this plant, and the last of the $10,000 worth of new stock having been sold, this amount will be used as a working capital. J. F. James, of Chattanooga, has removed to Dalton and will manage the plant.

GAS HEATED OVEN PATENTED.

Joseph A. Buckwalter of Royersford, Pennsylvania, has been granted United States Patent No. 1,045,940 for an oven heated by gas, which he has assigned to the Buckwalter Stove Company, also of Royersford. The oven has a suitable casing with supports for the oven near the ends. There are supporting guides each



Cross Section of the New Oven.

made fast to a respective end of the oven closer to the center of the oven than the oven supports. The guides are provided with a supporting lip spaced from the bottom of the oven but parallel to it and having a stop member at one end, a gas burner consisting of a suitable frame with burners and with means for connecting the gas supply thereto. The frame of the gas burner is provided at opposite ends with projecting ledges, capable of being held by the lips of the supporting guides.

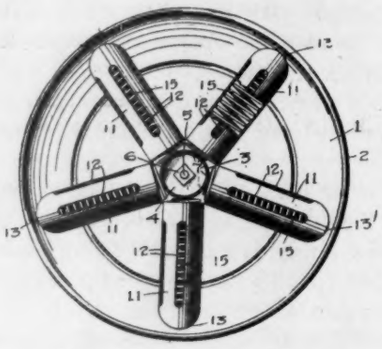
THE ESTATE RADIANT MODEL E. BASE BURNER.

The Estate Radiant Model E Base Burner, manufactured by the Estate Stove Company, of Hamilton, Ohio, is said to have been meeting with instantaneous success everywhere since it was recently placed upon the market. It is declared to be the first four-flue base burner ever manufactured, and to be more powerful and efficient than any base burner now made. There are several distinctive construction features which warrant the attention of any dealer. The makers say that the Estate Radiant Model E Base Burner consists practically of a hot air furnace built into the stove.

The four flues are arranged to form a double duplex system, and there is a patented jointless ash box. The nickel parts are attached and detached very quickly, since there are no bolts. It has a highly ornamental appearance and it is said to be well suited to the needs of anyone desiring a beautiful stove which will give good service. All dealers should obtain full particulars of the Estate Model E Radiant Base Burner from the Estate Stove Company, as well as details of the plan of co-operation which this company extends to dealers handling its line. When writing, please mention AMERICAN ARTISAN.

A NOVEL STOVE AND HEATING DEVICE INVENTED.

United States Patent No. 1,046,228 has been granted to Charles P. Shinn, Brooklyn, New York, for a



A View of the Heating Device.

heating device, consisting of a perforated heating plate and a series of heating units beneath the plate. Each unit is composed of a tube-enclosed coil and has means for supporting the units upon the bottom of the plate. There is a burner for supporting the device, having means co-operating with the units which are arranged radially in relation to the plate and burner.

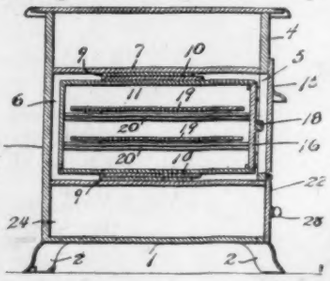
PENNSYLVANIA STOVE SALESMEN TO HOLD BANQUET DURING THE COMING WEEK.

Elaborate preparations are being made by the Stove Salesmen's Association of Pennsylvania to insure the biggest social affair which they have ever given when their annual reception and banquet takes place next Thursday, December 19, 1912, at the Holtel Walton, Philadelphia. Preceding the banquet, election of officers for 1913 will be held, and the banquet itself is scheduled to start at 7:30 p. m. sharp.

There will be several prominent speakers, among whom are Edward J. Cattel, chief of the Bureau of Statistics of the city of Philadelphia, who will speak upon the subject, "Getting the Most Out of Life." Another speaker will be W. Freeland Kendrick, Potentate of the Lulu Temple, Philadelphia. An interesting vaudeville program has been arranged to take place, in addition to the after-dinner speeches. The invitations were sent out about a month ago, and Secretary Woodburn has received enough acceptances to assure him that a large crowd will be present.

AN IMPROVED COOKING STOVE.

Mettie C. Earnest of Eldorado, Texas, has been granted United States Patent No. 1,046,059 for a cooking stove which was filed in 1910 at the Patent Office. A cooking stove comprised of top, bottom and



Cross Section of the New Cooking Stove.

side walls with ample oven space, provided with a door. There are channel members having strong walls on their inner ends and a removable oven having guiding ribs formed on the top, bottom and side walls. The ribs are capable of engaging the channel members. The door of the oven has a catch whereby closing and opening of the door is facilitated.

NEW ADVERTISING BUILDING OF CHICAGO.

The advertising interests of Chicago have set an example to other large cities by erecting a mammoth 16-story building known as the Advertising Building, and to be rented entirely to advertising and publication interests. This is the only building of the kind in the world. It costs $350,000 and the land it occupies is valued at $450,000.

The corner stone of the building was laid with impressive ceremonies Saturday, November 16. Addresses were made by A. E. Chamberlain, the retiring president of the Chicago Advertising Association; James M. Dunlap, the newly elected president; J. R. Woltz, an ex-president of the association, who is given credit for having originated and engineered the project; and Seth Brown, publisher of *Standard Advertising*. The corner stone was laid by George W. Coleman, president of the Associated Advertising Clubs of America. In the evening a brilliant banquet was held at the new Sherman Hotel, at which addresses were made by officers and members of the association.

The top three floors of the building will be occupied by the Chicago Advertising Association as its club home. Suitable space will be devoted to dining room, billiard room, library, reading room and to other club activities. Twelve floors are being rented or leased by advertising agencies, publishers, publishers' representatives and other advertising interests, while the main or store floor will be rented for commercial purposes. Seventy per cent of the space of the building has already been leased and the balance is being rapidly taken up. The building, it is expected, will be ready for occupancy before May 1, 1913.

The Chicago Advertising Association was the first advertising association to be formed in America, and for that reason it is now called the mother of the ad clubs of America. Over 150 such clubs are now in existence in other cities, most of which are affiliated into a national organization known as the Associated Advertising Clubs of America.

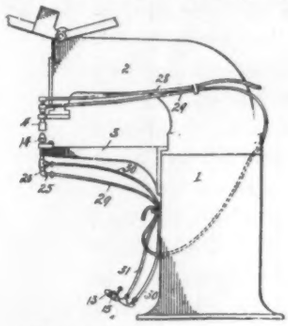
The completion of this building is only one more milestone in the upward progress of a calling that is only beginning to come into its own among the business interests of the world.

GASOLENE AND CRUDE OIL PRICES ADVANCING.

Crude oil advanced three cents per barrel on December 9th in Ohio, Indiana and Illinois. This is the second advance which has been recorded within a very short time, and the price is now the highest in the history of the entire oil fields. Quotations given are as follows: Ohio, $1.19; Indiana, $1.14, and Illinois, $1.02. It is freely predicted by oil producers that gasolene will sell for 25 cents a gallon, retail, before spring.

AN IMRPOVED ELECTRIC WELDING MACHINE.

United States Patent No. 1,046,240 has been granted to Frank Warren, Cincinnati, Ohio, who is assignor to the Toledo Electric Welder Company, also of Cin-



View of Machine and Die.

cinnati. The new electric welding machine consists of an adjustable die and a removable member, which is capable of being mounted in different positions opposite the adjustable die.

AMERICAN ARTISAN

H. O. SPENCER.

Had he been a woman we could have called H. O. Spencer a "perennial blooming flower," but we fear his very masculine instincts will rebel at such a description. What we mean particularly, however, is that he carries his years with the utmost ease, for when the truth is told that he was born on May 24th, 1852, it will be seen that he is no "spring chicken."

It will be very hard to convince the friends of H. O. Spencer in the hardware trade all over the country that he can lay claim to all the years that he states. He has acquired experience without bitterness and gained knowledge without any heart ache, which probably accounts for the fact that the lines in his face are no deeper and the bright spots of his sunny nature no darker than they were at the half way post.

The curves of his genial disposition have not yet turned into angles and neither gout nor golf has marked him for her own. So it will be readily appreciated that he is a most exceptional man and one well worth a distinguished niche in our Hall of Fame.

H. O. Spencer is not so widely known, as is "Spence," for under the latter sobriquet he manages to extract from his friends, the hardware trade, the shekels which pour into the coffers of the Richards-Wilcox Manufacturing Company. All of which goes to prove that a man must have a nickname to attain success — although, of course, ability has a little to do with it.

"Spence" is at present mentioned in news items and wireless despatches as "One of Aurora's most distinguished citizens," but it could just as easily be repeated for the State of Illinois. In Illinois were brought to pass practically all the great things of his career. He was born in the town of Marengo, choosing that place, it is reported, because they promised at some future date to erect a memorial tablet for him. Then he moved over to Sandwich, in the same State. Eastern newspapers and journals have punned this unfortunate town unmercifully, so we shall refrain from making the very obvious remark about "Spence's" keen and ravenous appetite.

In Sandwich he entered the employ of Jules Hummel, maker of machinery. The year was 1872. But on the horizon line he saw Aurora and it filled his soul with great desire and he migrated there, where he was employed first by C. S. Lewis and later by J. M. Andrews.

In 1882 he went with the Wilcox Manufacturing Company as a salesman and covered a great part of the Western territory. Following this he helped to organize the Richards Manufacturing Company in Aurora in the year 1903 and served this company in the capacity of treasurer.

The two companies were combined in November, 1910, under the name of the Richards-Wilcox Manufacturing Company, and "Spence," of course, stayed with them and helped to spread the fame of the Richards-Wilcox door hangers and other hardware specialties throughout the country. "Spence" is a royal good fellow whose energy, talents and ability have earned him all the success which he has attained.

The recent spell of sickness which befell him brought to the front all the friends he had made in his long career. This fact is, of course, not unusual because an acquaintance is very often turned into a friend during a period of ill health, but the number of friends who sent in their best wishes for his recovery was surprising, and his return to his duties recently was hailed with rejoicing from all quarters.
the country.

"Spence" is a royal good fellow whose energy, talents and ability have earned him all the success which he has attained.

Now that he is back on the job once more, he announces that he is going to make up for lost time. which means,of course, that the sparks will fly, for "Spence" is a great hustler.

HALL OF FAME

A. C. ALBRECHT.

Those who are at all familiar with the history, ancient and modern, of various lands know that the Albrechts have always been in the very front of affairs when anything at all exciting was going on, and, in fact, an Albrecht, which is after all merely the Teutonic form of Albert, was generally equal to the task of starting something himself. In other words, the name Albrecht was synonymous with the highest degree of aggressiveness and turbulent spirits and generally implied what we are now pleased to call a "scrappy disposition."

In our own country, quite a bunch of individuals followed a man probably the best known of the early Albrechts when in 1800 he split off from a certain denomination and established a separate church of his own. It was all "Albrecht" here we are told, so much so that his followers and co-workers were termed the "Albrecht People," until finally they outgrew the name.

This little apparent digression into things historical was made simply to determine once again just wherein our hero differs from the rest of those who bear his family name.

Enter the hero—who is a particularly handsome specimen of manhood with a large curling mustache, a pleasant smile (at all times), about medium height, with a sixty candle power penetration in his eyes and a 120 horse-power brain.

In addition it may be said that he differs from the rest of the Albrechts, which is in itself quite a distinction. He signs checks and letters under the name of A. C. Albrecht, but outside of the spelling, we fear the pioneers of the family would disclaim relationship. In all external characteristics A. C. Albrecht bears very little resemblance to the noted Albrecht family, but we have his word that he is an Albrecht, so it must be so, since we would put our entire bank roll upon his word at any time. Far be it from us to criticize the Albrecht family in the slightest, for history has probably dealt too harshly with them anyway. They were estimable people, but the present greatest holder of the family name—A. C. Albrecht, stands out from the rest just as a big Flaming Arc obtrudes its presence from among a circle of little old carbon filament incandescent lamps. The main reasons are that he has a wonderful personality and is modest, affable and unassuming, traits which are very seldom found nowadays.

He made his first appearance on earth on the 6th of April, 1857, and during the early period of his life he developed two things which have clung to him during his later years—one the nickname of "Tony" and the other the luxuriant mustache previously referred to.

In 1876 he first broke into the industrial field via way of the American Machine Company of Philadelphia, and not so very long afterwards was forced out directly in the limelight of trade journal pages. This is all the more remarkable when it is considered that he has an unnaturally retiring disposition and it is said that the photographer had to give him an anæsthetic when taking his picture.

He rose to the position of Superintendent of the Factory of the American Machine Company until it was succeeded by North Brothers Manufacturing Company in 1890, and here he applied his wonderful ability to the task of making the "Yankee" tools as celebrated as he himself was, and the phenomenal sale of "Yankee" tools is the best witness of how well he succeeded. He has the true Albrecht quality of being able to "get there."

At present he is Secretary of North Brothers Manufacturing Company. As this firm is a member of the so-called "Big Five" of Philadelphia hardware manufacturers it naturally falls upon "Tony" Albrecht to represent the company when there are any "doings," and he is likewise very much in evidence at big hardware conventions, with his friends always trailing along with him or surrounding him in groups, but he never loses his modest and unassuming ways.

HARDWARE RECORD

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 88 to 93 inclusive.

The Hurley Machine Company, of Chicago, Illinois, manufacturers of washing machines, have increased their capital stock from $150,000 to $1,000,000.

Within the past week the wholesale hardware house of MacKenzie Brothers, Winnipeg, Manitoba, Canada, suffered a severe loss by fire, the damages aggregating $80,000.

The Cary Hardware Co., at present located at 19 and 21 Roosevelt Street, New York City, New York, will move the first of the year to Nassau Street, corner Jay Street, Brooklyn, New York, opposite Manhattan Bridge.

The Cheney Hammer Company is to have a new three-story plant at Little Falls, New York, of brick with concrete front. There will be a forging room in the rear of the building, one story high. The architect's plans are all ready.

The hardware business of M. Reinhardt's Sons, of Lincoln, Illinois, which was established by Matthew Reinhardt, Sr., in 1867, has just been sold to Lauer & Eberle, whose sons will be the active members of the firm. The consideration was about $55,000.

The J. S. Woodhouse Company, of Newburgh, New York, have recently been incorporated, with a capitalization of $200,000, to manufacture and deal in agricultural and hardware implements, the incorporators being William H. Coldwell, Walter Coles and W. Clarence Lynn, Jr.

The Stearns Hardware Mfg. Co., controlled by the firm of E. C. Stearns & Co., Syracuse, New York, expect to double their present output in the near future by their lease of the Economy foundry plant in that city. Extensive improvements are now being made and new equipment installed.

The Executive Committee of the Indiana Retail Hardware Association recently met in Indianapolis, Indiana, and concluded to make the Claypool Hotel headquarters during the Convention, to be held in that city January 28, 29, 30 and 31, 1913. Tomlinson Hall will house the exhibit, as is the usual custom.

An addition is now being erected to the plant of the Blasier-Sanborn Mfg. Co., Utica, New York, who were recently incorporated, with a capitalization of $350,000. This firm purchased the business of the M. E. Blasier Mfg. Co., manufacturers of hardware specialties, etc., and will continue in the same lines.

Gilbert A. Sayles, one of the first merchants to enter the retail hardware business in Chicago, Illinois, died Thursday, December 12th, at the residence of his daughter, Mrs. F. L. Benham, 501 West 60th Place, Chicago, at the age of 85 years. Mr. Sayles was born in Warren, Pennsylvania, came to Chicago in 1836 and retired from business 15 years ago.

The Coldwell Mfg. Company, of Newburgh, New York, manufacturers of Lawn Mowers, and the Lovell Mfg. Company, of Erie, Pennsylvania, manufacturers of Wringers, who for some time past have maintained joint warehouses, salesrooms and offices at 176 West Lake Street, Chicago, Illinois, have secured more desirable quarters and are now removing to 62 East Lake Street, Chicago, Illinois.

At the regular annual meeting of the stockholders of the Western Hinge & Mfg. Co., Leavenworth, Kansas, which was held recently, it was voted that the board of directors be instructed to issue bonds in the sum of $15,000, if they found it necessary in order to promote the industry. The officers' reports show that business has been good and the outlook for the coming year is very promising. The following officers were elected: J. A. Simmons, president; E. J. Faut, vice-president; Ben Shackleford, treasurer, and Miss Ethel Terwilliger, secretary.

The Sanitary Metal Kitchen Cabinet Co., of Hot Springs, Arkansas, has filed articles of incorporation, the capital stock being placed at $25,000, representing 1,000 shares of $25 each, headquarters to be in Hot Springs. The purpose of the incorporation is to acquire ownership by purchase of a patent granted to Irvin C. Curtice May 21, 1907, for the placing of this article on the market. The incorporators are: I. O. Curtice, C. W. Appleby, Guy Phillips, L. C. Andrews, J. A. Mead, M. J. Henderson, F. P. Walker, L. D. Cooper, Ed Spear, W. E. Potter, R. L. Williams, C. F. Huff and C. C. Treadwell.

EXECUTIVE COMMITTEE OF NATIONAL RETAIL HARDWARE ASSOCIATION TO HOLD MEETING.

The Executive Committee of the National Retail Hardware Association will hold a meeting at Argos, Indiana, on Dec. 27 and 28. It is probable that one of the things decided at the meeting will be the exact date of the annual convention in Jacksonville, Florida.

A $250,000 HARDWARE FIRE.

Telegraphic advices inform us that the three-story building of the Huey & Philip Hardware Company, at Dallas, Texas, was destroyed by fire on Thursday, December 12th. The loss is estimated at $250,000 damages and one fireman was injured.

If life is not a continual denial of the past, then it is nothing.—*Arnold Bennett.*

Conference of Manufacturers, Jobbers and Retailers in Chicago Marks Epoch in Hardware History

When President Lewis C. Abbott of the National Retail Hardware Association put his foot down last October, and politely but firmly refused the invitation to attend the Convention of the National Hardware Association in Atlantic City, there was a somewhat divided opinion among the hardware trade in general.

Many frankly criticized the genial head of the retailers for refusing a possible chance to advance the interests of his organization. There had been an afternoon set apart in the program for a conference between the retailers and jobbers and also a joint conference with the manufacturers, and President Abbott's absence, together with the absence of all other officers of the National Retail Hardware Association, made it necessary to omit this part of the proceedings. There was considerable correspondence and telegrams on both sides before it became definitely known that President Abbott would not attend, and some efforts were made to show him he was mistaken in the stand which he took. Several trade journals took it upon themselves to advise him to attend and even in some cases to rather censure his attitude.

But President Abbott calmly and coolly stated that in previous years a similar conference had been arranged and that no tangible results had been accomplished and that it was folly to repeat past performances. A conference at a big convention like the one in Atlantic City, he pointed out, was given over mainly to speechmaking, and although the addresses could be largely concentrated on the points at issue, judging from previous meetings the results would be negligible. This is partly because such meetings mean a "scattering of the shot." Many hardware manufacturers are not interested in the things set forth, either because they do not make or handle the lines of goods about which the controversy centers or because they do not sell to the catalogue houses. Therefore such manufacturers do not need to enter into the argument, and President Abbott has most strongly asserted the need for more personal heart-to-heart work, which can be best accomplished by small conferences with the manufacturers and jobbers most concerned.

A conference was therefore arranged for committees of the three organizations at Chicago and on Monday, December 9th, and Tuesday, December 10th, these committees met in the La Salle Hotel at Chicago.

The National Retail Hardware Association was represented by: Lewis C. Abbott, President, Marshalltown, Iowa; M. D. Hussie, Omaha, Nebraksa; Charles A. Ireland, Ionia, Michigan; H. F. Krueger, Neenah, Wisconsin; W. P. Bogardus, Mt. Vernon, Ohio; M. L. Cory, Secretary, Argos, Indiana.

The following men represented the National Hardware (Jobbers) Association: W. D. Taylor, The George Worthington Company, Cleveland, Ohio, President; W. S. Wright, Wright and Wilhelmy Company, Omaha, Nebraska; J. D. Moore, Moore-Handley Hardware Company, Birmingham, Alabama; A. J. Bihler, James C. Lindsay Hardware Company, Pittsburgh, Pa.; T. James Fernley, Secretary-Treasurer, Philadelphia, Pa.

The committee which represented the American Hardware Manufacturers' Association consisted of: G. H. Jantz, American Wringer Company, New York; Frank Baackes and D. A. Merriman, American Steel & Wire Company, Chicago; E. M. Kemp, Wabash Screen Door Company, Chicago; F. S. Kretsinger, American Fork and Hoe Company, Cleveland, Ohio; F. D. Mitchell, Secretary-Treasurer.

On the first day of the conference the retail dealers' committee met with the jobbers' committee only and certain points at issue were thoroughly thrashed out. Far from coming "loaded for bear," however, President Abbott and his fellow members on the retailers' committee, impressed everyone with their extremely reasonable and fair demands. This is a most pleasing contrast to the demands made previous to this time and emphasizes the fact that President Abbott and the retail dealers have now adopted an exceedingly good and efficient policy. The main thing discussed was, of course, the question of prices. It was pointed out that the retailer has been greatly discriminated against in favor of certain catalogue and mail order houses.

On the other hand, the retail dealers did not insist that no sales must be made to the catalogue houses. Neither did they demand that the latter be compelled to raise prices, but reasons were urged at great length as to why the retail dealer should be given an equal chance to meet such competition. In other words, it should be a give and take proposition entirely.

The retailers did not attempt to coerce or intimidate or gain their ends by a threatened boycott, but made a manly and straightforward statement of the necessity of giving them the opportunity to sell to the ultimate consumer at the same price which a catalogue house or premium house is able to offer.

The Jobbers' Committee, after a long discussion, accepted the following resolution which was submitted:

RESOLVED, That we assume as distributors, wholesale and retail, that the prices made by catalogue and mail order houses are those at which manufacturers are willing that their goods are to be sold to the consumer, and that we feel that it is only just and proper that those who distribute to the consumer for the manufacturers should be remunerated for the services rendered.

On Tuesday a joint conference of the retailers and

jobbers was held with the manufacturers' committee. Not so much was accomplished here because the last named committee did not feel it had the authority to take definite action, although the members of it concurred in meeting the retailers on the proposed basis, and will recommend to the American Hardware Manufacturers' Association that they act upon these lines.

It was regarded as somewhat unfortunate that this committee of manufacturers, although very able men, were not representative of the lines about which the main discussion was centered. They represented manufacturers of large unit goods rather than the trade mark lines of goods, quoted prices of which are under discussion.

But this is only the first conference and one very excellent result accomplished was to determine that other conferences would be held with other committees in the near future. Meetings in this way held by the retailers, manufacturers and jobbers who are or are supposed to be responsible for certain conditions, make it very certain that much good can be accomplished. It is very true, moreover, that such joint conferences cannot fail to give the hardware trade a greatly increased impetus.

This initial conference therefore marks a new page of hardware history and to President Abbot and his associates must be accorded a liberal amount of credit for bringing it to pass. It may be hoped, therefore, that long distance recriminations, accusations and rebukes are a thing of the past, and that harmony may permanently exist.

The committees at the joint conference on Tuesday were taken to the Midday Club for luncheon as the guests of the American Steel and Wire Company and finished their deliberations there.

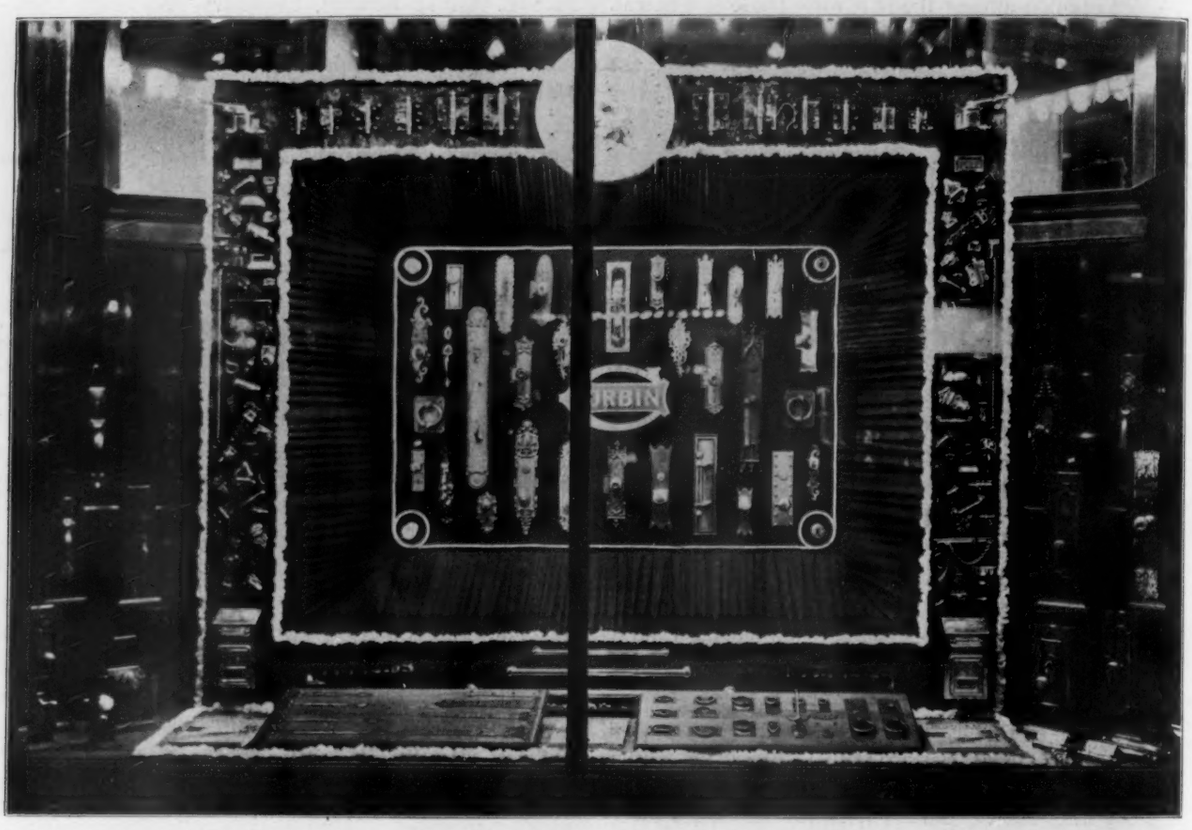
AN UNUSUALLY STRIKING WINDOW DISPLAY OF BUILDERS' HARDWARE.

The window display shown in the accompanying illustration has a decidedly original and artistic appearance. It was arranged by Frank G. Cramer for the Warner Hardware Company, of Minneapolis, Minnesota, and received Honorable Mention in the recent window display contest of AMERICAN ARTISAN. The whole display presents the illusion of being a large picture set in a frame, although there is nothing in the window but different varieties of builders' hard-

The panel in the background was covered with black cloth. The border of this background was formed by heavy sash cord, having cut glass knobs in each corner, while upon the background was placed a display of brass locks and door knobs. From the background outwardly sloping walls were formed of black cloth, running to a frame which stood three feet in front of the background. This frame was covered with green plush.

On the latter was placed a "hit or miss" display of latches, hinges, staples and various other articles of brass. Two mail boxes are shown at the lower corner of the frame and along the sides and on the bottom of the window proper other articles of builders' hardware are artistically arranged.

One of the most unusual features in connection with the window is that there are no price tags shown. It was stated by the window-trimmer that inasmuch as the plan of the display was to convey merely the idea of dealing in artistic and elegant designs which would appeal to a rather high class of people, the price cards were intentionally omitted.



Window Display Arranged by Frank G. Cramer for the Warner Hardware Company, Minneapolis, Minnesota, Which Received Honorable Mention in the Recent Window Display Contest in AMERICAN ARTISAN.

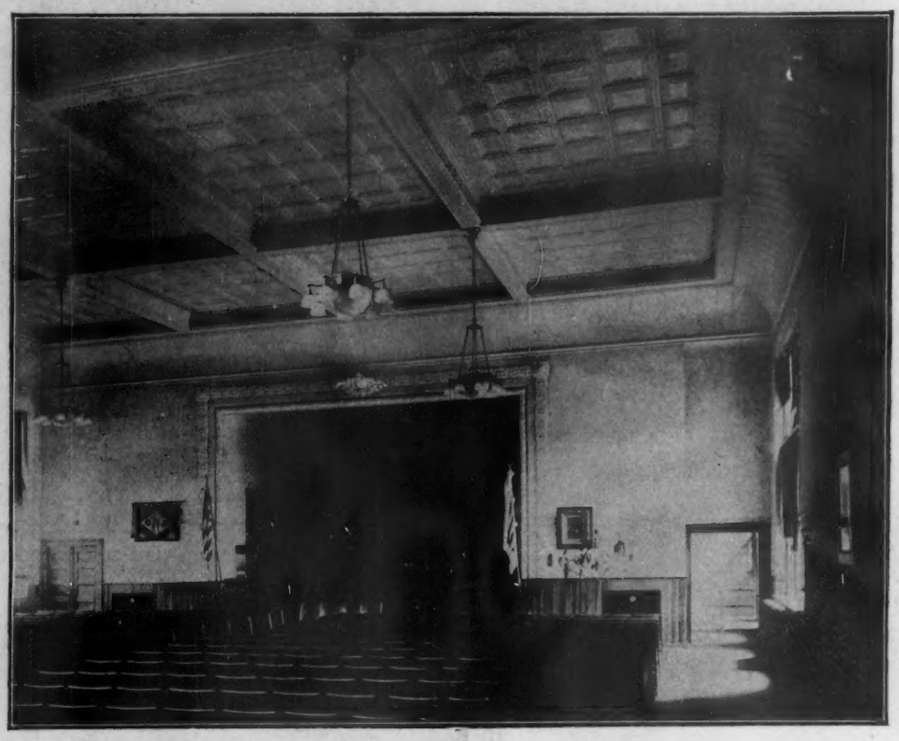
high quality finish white enamel paper, illustrating the different designs in Modern French, Louis XIV, Greek, Rococo, Colonial, Empire Gothic, Romanesque, in separate plates, including Borders and Moldings, and also showing the various combination designs. They show one entirely new order termed "Modern French," together with many new designs which they have added to their previous large number of designs.

The photographs from which the full page designs were produced were made in their own gallery from metal plates in position just as they would appear on a ceiling in a room.

The catalog especially calls attention to the many superior features incorporated in the Canton Metal Ceilings, calling especial attention to the architectural features and beautiful designs and the construction of the new repressed joints.

This company have also issued a book in Spanish for the Spanish speaking countries, which is said to be just as complete as the one in English.

The new metal ceiling catalog is sent to the trade interested in interior metal finish and we would suggest that all who are interested write the Canton Art Metal Company and secure one of these at the earliest possible moment. When writing please mention AMERICAN ARTISAN.



An Attractive Ceiling Design Installed in a Hall.

Design for Metal Proscenium in Theater.

IMPROVED SOLDERING IRON INVENTED.

To Johan L. Nilsson, Chicago, Illinois, has been granted United States Patent No. 1,043,963 on a soldering tool which consists of a tip and heat core

View of the New Tool.

and of a shell for supporting the tip and core against each other. The shell has at its end farthest removed from the point of the tip a contrivance for engaging and holding the tip and core in contact with each other. Thus the shell serves as a casing and common support to both tip and core and protects the joint against exposure to the acids used on the tip.

NOTES AND QUERIES.

AIR PRESSURE SYSTEM.

From Vernon Reed, McKean, Pennsylvania.

Would you kindly give me the address of any company that manufacture an air pressure system for supplying a house or factory with a water supply. I do not mean the pneumatic water systems.

Ans.—Fairbanks, Morse & Co., 900 South Wabash Avenue, Chicago, Illinois.

CELLULOID NOVELTIES.

From J. E. Whitacre, 1428 Rock Street, Rockford, Illinois.

Kindly give me the names of concerns who make a specialty of celluloid novelties, such as blotter covers, etc., for advertising purposes.

Ans.—Southard Novelty Company, Columbus, Ohio; Sillcockf Miller Company, South Orange, New Jersey; Parisian Novelty Company, 22d and La Salle Streets, Chicago; Advertising Novelty Company, 420 South Winchester Avenue, Chicago, Illinois; Whitehead & Hoag Company, Newark, New Jersey, also 38 South Dearborn Street, Chicago, Illinois.

WIRE FORMING AND TWISTING MACHINES.

From S. Lenning & Sons, 329 East 34th St., New York City.

Can you give me names of manufacturers of wire forming and twisting machines which form and twist 5/16" diameter steel wire, such as is used for the manufacture of steel wire chairs?

Ans.—Bates Machine Company, Joliet, Illinois. Watson Machine Company, Paterson, New Jersey. Wire Specialty & Machine Works, South Bend, Indiana.

TIN OR SHEET IRON SIGNS.

From DeWitt & McClure, Chrisman, Illinois.

Can you give me the address of firms making tin or sheet iron signs?

Chicago Metal Sign Company, 518 West Van Buren Street, Chicago. Niagara Metal Stamping Works, Niagara Falls, New York. Spanjer Brothers, 706 North Green Street, Chicago. Western Sand Blast Mfg. Company, 2440 West 22nd Street, Chicago.

"T" AND "GATE" HINGES.

From A. M. Frank, % Frank Realty Company, 2 North Paca Street, Baltimore, Maryland.

Kindly give me the names of firms making or handling "T" and "Gate" hinges.

Ans.—Bullard & Gormley Company, 175 North State Street, Chicago; Hibbard, Spencer, Bartlett & Company, 303 North State Street, Chicago; Acme Steel Goods Company, 2834 Archer Avenue, Chicago; McKinney Manufacturing Company, Pittsburgh, Pennsylvania; Richards-Wilcox Mfg. Company, Aurora, Illinois; National Manufacturing Company, Sterling, Illinois; Griffin Manufacturing Company, Erie, Pennsylvania; E. C. Stearns & Company, Syracuse, New York.

ITEMS.

Olaf Rye of Fairfax, Minnesota, has sold his tin shop to W. A. Coleman, who will also do plumbing work in connection with it.

It is said that the Superior Metal Products Co. of Elyria, Ohio, will soon increase its capital stock to buy another building and additional equipment, as they are hampered for room on account of the rapid growth of their business.

The Sheet Metal Contractors of Cleveland, Ohio, recently gave a social card party and entertainment at the Builders' Exchange, with the object of promoting good fellowship among those connected with the association.

The Brazil Can Co. of Brazil, Indiana, and the Chicago Sheet Metal Co. have been consolidated. The new concern will be known as the Brazil Sheet Metal & Can Co. They will locate in the vacant plant of the defunct Northwestern Can Co.

A voluntary petition in bankruptcy has been filed in the Federal Court at Oklahoma City, Oklahoma, by the Arthur R. Moore Sheet Metal Co. of that city, which claims assets of $3,476.78, with liabilities of over $13,000. The concern is one of the largest of its kind in the state.

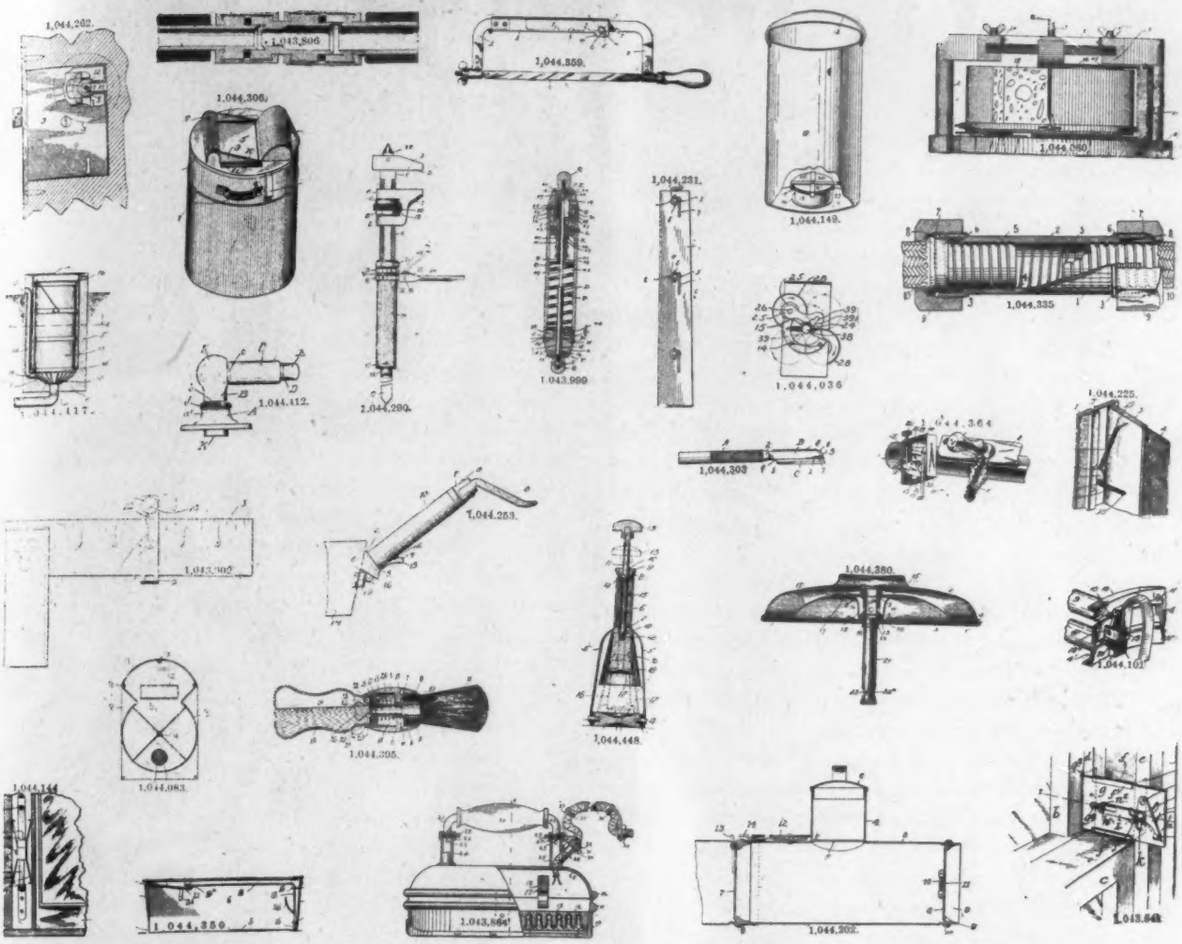
The McKeesport (Pennsylvania) plant of the American Sheet & Tin Plate Co. was closed down for half a day recently to permit their 1,200 employees to attend the funeral of Charles A. Meyers, 71 years old, who had been superintendent of the annealing department for over twenty years.

The Cincinnati Metal Trades Association of Cincinnati, Ohio, of which William Dixon is secretary, recently gave the employees of the sheet metal industries of that city a free educational lecture and moving-picture exhibition, the lecturer being W. H. Doolittle, a member of the association, who spoke on the need for safety devices.

The new plant at North Warwood, West Virginia, of the Merchant & Evans Co., Chicago, Illinois, has recently been completed and is now in operation, with a large number of orders ahead. Those in charge of the mill are H. B. Marshall, superintendent; Edward List, general foreman; John M. Duncan, secretary, and John S. Mallory, engineer.

The well-known firm of W. J. Burton & Co., of Detroit, Michigan, manufacturers of tinning and roofing supplies, hardware, etc., have recently been incorporated, with a capitalization of $100,000 and will continue in the same lines as heretofore. William J. Burton, Frederick F. Snow and Matthew H. Bishop are the largest stockholders in the new corporation.

NEW PATENTS.



1,043,806 Hose-Coupling. Valentine Dahl, New York, N. Y., assignor to American Bridge Company, New York, N. Y., a Corporation of New Jersey. Filed May 18, 1909. Serial No. 496,830.

1,043,842. Window-Sash Lock. Nathaniel Kahn, New York, N. Y., assignor of one-half to Sidney L. Root, New York, N. Y. Filed Feb. 24, 1912. Serial No. 679,661.

1,043,864. Electrically-Heated Sad-Iron. Effingham Laurance Pollard, Dobbs Ferry, N. Y.; Marion Morton Pollard administratrix of said Effingham Laurance Pollard, deceased. Filed Oct. 26, 1911. Serial No. 656,972.

1,043,902. Woodworking-Tool. Ralph Stone Nelson Burdick, Bishop, Cal. Filed Sept. 5, 1911. Series No. 647,594.

1,043,999. Spring-Hinge. Joseph M. Zuk, New Britain, Conn. Filed April 5, 1912. Serial No. 688,692.

1,044,036. Device for Sharpening Razors. Francis K. Fassett, Dayton, Ohio, assignor to Albert Blair, St. Louis, Mo. Filed June 9, 1911. Serial No. 632,231.

1,044,080. Cheese-Cutter. Ralph Pinto, Stockton, Cal. Filed April 16, 1912. Serial No. 691,181.

1,044,083. Trap. Lemuel A. Pumpelly, Lowe, Kans. Filed Nov. 23, 1911. Serial No. 661,961.

1,044,101. Mop-Wringer. Charles Steller and Eddy N. Clark, Seattle, Wash. Filed Jan. 17, 1912. Serial No. 671,771.

1,044,144. Window-Sash Holder. Sylvanus B. Crane, Kansas City, Mo. Filed Oct. 10, 1910. Serial No. 586,308.

1,044,359 Hacksaw. Joseph S. Dikeman, Norwalk, Conn., assignor to The Dikeman Manufacturing Company, Norwalk, Conn. Filed Sept. 18, 1912. Serial No. 721,038.

1,044,149. Bucket-Valve. William L. Deming, Salem, Ohio, assignor to The Deming Company, Salem, Ohio, a Corporation of Ohio. Filed July 12, 1912. Serial No. 708,998.

1,044,202. Rat-Trap. Charles A. Lindberg, Bradford, Pa. Filed March 28, 1911. Serial No. 617,344.

1,044,225. Screen-Door Check or the Like. Arthur E. Molin, Rockford, Ill. Filed April 10, 1911. Serial No. 620,146.

1,044,231. Combined Fastening Device and Fence-Post. Charles Obernauf, North Lima, Ohio. Filed Feb. 8, 1911. Serial No. 607,426.

1,044,253. Combined Utensil-Handle and Lid-Lifter. John D. Sampley, Buchanan, N. Mex. Filed May 26, 1911. Serial No. 629,648.

1,044,262. Knob-Spindle and Lock. Reinhold Schoell, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed May 18, 1912. Serial No. 698,258.

1,044,290. Pawl-and-Ratchet Device. William T. Taylor, Pittsburgh, Pa., assignor of one-half to W. M. Heasley, Pittsburgh, Pa. Filed Feb. 18, 1910. Serial No. 544,615.

1,044,303. Knife. Phillip H. Unsinger, Fremont, Ohio. Filed July 10, 1911. Serial No. 637,721.

1,044,306. Top for Ash-Cans. Thomas Kearny Vertner, Richmond, Va. Filed May 25, 1912. Serial No. 699,759.

1,044,335. Coupling for Metal Hose. Harold H. Ball, New York, N. Y. Filed Jan. 21, 1911. Serial No. 603,812.

1,044,350. Animal-Trap. Theodore Vanderbilt Clapp, Springfield, Mass. Filed March 23, 1912. Serial No. 685,774.

1,044,364. Gas-Stove Attachment. Charles Prentis Ellis and Maurice Patrick O'Donohoe, Nashville, Tenn.; said O'Donohoe assignor to said Ellis. Filed June 21, 1911. Serial No. 634,473.

1,044,380. Gas-Heater. Ferris P. Harker, Cincinnati, Ohio. Filed April 12, 1912. Serial No. 690,218.

1,044,395. Shaving-Brush. Marvin W. Kenady, Portland, Ore. Filed Jan. 5, 1912. Serial No. 669,590.

1,044,412. Door-Buffer. Albert S. Newton, Providence, R. I. Filed Aug. 12, 1912. Serial No. 714,585.

1,044,417. Receptacle for Garbage-Cans. Charles A. Raggio, Chicago, Ill., assignor of one-half to Louis G. Raggio, Chicago, Ill. Filed Aug. 3, 1911. Serial No. 642,123.

1,044,448. Nutcracker. Stanislaw Flis, Curtisville, Pa. Filed Jan. 27, 1912. Serial No. 673,906.

Trade Report.

IRON AND STEEL.

The steel market has shown during the week little activity on the surface but specifying against contracts is going on at a heavy rate and many large tonnages are now under negotiation. Iron bars have stiffened further in the past few days for delivery at the convenience of the mills, generally three to five weeks. They are quoted at 1.65, but relatively little such business is done for prompt shipment, and also upon contracts running into next year 1.70 or 1.75 is obtained.

The general steel market shows no change. Pressure for delivery continues heavy. Mills are all reported to be behind in crude steel deliveries and cannot make further sales. Some important business is under negotiation for steel-making pig iron.

The close approach of winter weather seems to have had no general effect in decreasing the pressure for deliveries, though of course in certain cases there is less demand. Thus there is little doing in track material for prompt shipment. On the whole, however, the pressure upon mills is greater.

Rail mills now have on their books more than 2,500,000 tons of rails for next year and it is believed that they will enter 1913 with at least 3,000,000 tons booked. The tonnage is pretty well spread over the year. Other branches of the steel industry are heavily booked up.

The United States Steel Corporation has taken 18,000 tons of steel rails for the Commonwealth Railroad of Australia, the award being part of 50,000 tons placed. The corporation took the entire allotment to the United States. The steel corporation is operating 95 per cent of its steel-making capacity, and last week reached 96 per cent. Its bookings are still running in excess of its productions, and its policy appears to be to sell as far into next year as buyers' needs require, at the contract prices now ruling.

Railroad requirements have again been a large factor in the week's business. Car orders have been estimated at from 12,000 to 15,000. In the Chicago district 30,000 tons of car material was closed by one seller, nearly all for delivery in the second half of 1913.

Wire rods are stronger and only scattered instances are reported of less than $30 Pittsburgh. Steel axles have been advanced $1 to $1.70 and rivets and track bolts have been marked up, the latter to $2.40, structural rivets to $2.10 and boiler rivets to $2.20.

COPPER.

Dealings in copper have not been so extensive, which is not surprising in view of the recent change in political conditions, and fluctuations in the metal have been more limited. Producers for the most part have disposed of their stock for the current month and very largely for December. Consumers are showing great interest in the present situation and considerable inquiries are being made, but so far the business accomplished has been limited. Reports from various points are very satisfactory, and now that the turmoil connected with the presidential election is passed industrial activity based on the increasing prosperity of the country is continuing its development.

Business in some metals has been extremely dull, and if copper is an exception, as some producing interests think, it is found to apply to European orders only. The weaker foreign market is a surprise, judging from the extravagant reports that have been current of the large orders and inquiries in the market yesterday from Europe. The inquiries have been large, but there is every reason for thinking that the amount of business actually done by buyers in the past few days has been very much exaggerated. It was generally expected in the trade that another substantial advance would take place in the foreign market during the week, but there has been less speculative activity there, judging from the sales reported, the advance being virtually held without any important increase.

On the whole, there is apparently no disposition to press operations either way at present, the market being in fact more or less in a waiting attitude pending new developments.

TIN.

The market for tin was steady throughout last week, in sympathy with the foreign situation. Prices, compared with those of a week ago, show a net gain of about ⅛c to ¼c a pound in the spot and nearby positions. Trading was quiet, with consumers confining their purchases to spot and November deliveries. The arrival of steamers with a good supply during the week naturally affected the spot price, which may be quite irregular for a short time.

Many in the trade expect the present reaction to be continued between now and the Banca sale, and after the sale is out of the way an advance, if the general situation for the metal has not undergone any deterioration in the meanwhile.

With these present features it would be quite unreasonable to expect any movement to advance prices, consequently a rise is unlooked for at present.

SHEETS.

The record of the sheet market this week has been rather monotonous, since it was simply a case of mills falling farther and farther behind in deliveries. If the mills were seeking to advance prices they could readily do so now, but they are pursuing a conservative course and as a rule dropping out of the market when they reach a certain point.

A number of mills have been selling sheets at advanced prices, however, sales at above the market being usually sales for early delivery within perhaps four or five weeks in the case of black sheets and from six to eight weeks in galvanized.

Occasionally sales are made for extended delivery next year at advanced prices, where the buyer pays for service or desires special finishes not generally

made. Some of the sheet mills announce that they would be glad to buy considerable tonnages of galvanized sheets at base prices for any delivery within the next few weeks. They could use such sheets to advantage in catching up with their customers and could later make further sales, probably at advanced prices.

LEAD.

The lead market is dull and weak and considerably lower. Owing to the weakness in the stock markets and fears of a reduction in the tariff, buyers are holding off and the trade is pursuing a waiting policy. In the meantime, however, the independents appear to have lost their desire to fight the decline and are offering lead at below the trust prices. The consumption shows little decrease, but buyers appear to have bought large amounts for future delivery, and the movement is principally on old contracts. Consumers are taking only what they actually require for immediate use.

Receipts of metal at the Western market for the week were much smaller than those of the previous week and shipments were also smaller.

COKE.

The Connellsville coke trade continues practically featureless so far as field conditions are concerned. Production keeps at approximately 400,000 tons and shipments at 12,000 cars weekly. Shipments vary somewhat between shipping points, although the total remains the same. The coke region is running six days per week and firing up a few more ovens, but these have not been sufficient to add much to production or output. The labor supply shows no signs of improvement, nor is there any immediate prospect of bettered conditions in this respect. The production of 48-hour coke is still far below the needs of consumers. As fast as additional ovens are lighted the demand for the foundry grade reaches still greater proportions.

Against these unsatisfactory conditions is the fact that prices are firmer and higher and the car supply continues ample. The railroads are said to be making good their promises in this respect.

SCRAP IRON.

On all the standard grades of scrap iron the market continues to have a sagging tendency. With the exception of re-rolling steel rails, old car wheels and railroad malleable, which are holding fairly steady, the leading lines declined during the week from 20 to 50c a ton and in a few instances considerably more than that. Many specialties, however, such as bars, springs, couplers, knuckles, etc., have not weakened correspondingly, and in some cases the demand has been strong enough to create slight advances on such material. This situation is doubtless due to the unequal amount of standard scrap that has come into the market within the past few weeks. Heavy melting steel still remains the weakest in the list, a condition that will not likely be changed materially until the embargo which is blocking shipments to Inland Steel Company has been raised.

This embargo, which has been effective since October 28th of the present year, is said to be due to the removal of the scrap yard, in order to make way for the erection of some new gas producer equipment. The conditions resulting from this rearrangement are only temporary and it is likely that the resulting embargo will not be greatly prolonged.

PIG IRON.

The market has been strong for several days and a report that 1911 prices had been made was accepted as not improbable. The outlook, judging from the reservations made prior to this time, indicates the movement next season will be as large as that of the season now drawing to a close.

Pig iron for 1913 delivery will be sold at 10 cents less than the prices that prevailed in 1911 and from 55 to 65 cents a ton higher than the prices at which ore delivered this year was sold.

Steel-making pig iron has been more active. One steel company at Pittsburgh has bought 40,000 tons of Bessemer iron, $17 at valley furnaces being the basis for a part, but on nearly 30,000 tons $17.25 at furnace was paid.

Late sales of basic iron, including one of 4,000 tons for first quarter delivery, have been made at $16.50 valley furnace.

Malleable has been bringing higher prices than basic. Even forge at the present time will bring more money than basic. This is probably due to the scarcity of coke, which keeps down the number of active furnaces, while the furnaces operating wish to make as large a tonnage as possible, and a furnace will make somewhat more basic iron per day than foundry.

CHICAGO MARKET.

Lake Superior charcoal	$18.75@19.25
Northern Foundry No. 1	18.50
Northern Foundry No. 2	18.00
Northern Foundry No. 3	17.75
Southern Foundry No. 1	18.85@19.35

PITTSBURGH MARKET.

No. 2 foundry	$17.90@18.15
Gray forge	16.40
Bessemer	18.15
Malleable	17.90@18.15
Basic	17.15@17.40
Southern No. 2	18.90@19.40
Southern forge	17.90@18.40

BIRMINGHAM MARKET.

No. 2 foundry	$14.00@14.50
No. 3 foundry	13.50@14.00
No. 2 soft	14.00@14.50

Matthew Addy & Company of Cincinnati, Ohio, in their weekly market report for November 23, 1912, say:

While there is nothing wildly exciting in the iron market, yet everything is going in the right direction. The activity of the trade can be imagined by the fact that every steel mill in the country is behind on its orders; there is not a merchant furnace but is being bombarded to make faster shipments on old contracts and most makers of finished goods have not only cleaned out accumulated stocks but have enough business ahead to insure steady operations for some time to come. In fact just now the whole struggle in the iron trade is to get enough raw material. The furnaces cannot secure coke in sufficient quantities, the mills and foundries cannot get enough iron or coke to make them feel secure, and no one can get enough labor. As showing how the large producers are suffering, it is to be noted that more than 2,500 foreigners left Gary in a single week to go back and fight for their native lands. Within a very short space of time the United States Steel Corporation taken as a whole lost 9,000 men for this reason. The coke fields—practically dependent on foreign labor—are in bad shape and their output has been greatly reduced. So with a shortage of cars and a growing shortage of labor, there is trouble enough in the iron trade.

New business is of fair volume. Inquiries for the third quarter of next year are making their appearance. Prices are firm with a rising tendency.

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

			Per Box.
IC	14x20		$7 40
IX	14x20		8 50
IXX	14x20		9 50
IXXX	14x20		10 60
IXXXX	14x20		11 70
IC	20x28		14 80
IX	20x28		17 00
IXX	20x28		19 00
IXXX	20x28		21 20
IXXXX	20x28		23 40

COKE PLATES.

Cokes, 180 lbs	20x28	$ 8 30
Cokes, 200 lbs	20x28	8 50
Cokes, 216 lbs IC	20x28	8 80
Cokes, 270 lbs IX	20x28	10 50

PIG IRON.

North'n Fdy., No. 1	$15 00
North'n Fdy., No. 2	14 50
North'n Fdy., No. 3	14 25
Southern Fdy., No. 1	16 10
Southern Fdy., No. 2	15 85
Southern Fdy., No. 3	15 60
Lake Sup. Charcoal	16 50
Malleable	14 50

BLUE ANNEALED SHEETS

No. 10	per 100 lbs.	$2 25
No. 12	per 100 lbs.	2 0
No. 14	per 100 lbs.	2 35
No. 16	per 100 lbs.	2 45

ONE PASS COLD ROLLED BLACK

No. 18-20	$2 60
No. 22-24	2 65
No. 26	2 70
No. 27	2 75
No. 28	2 80

GALVANIZED

No. 16	per 100 lbs.	$3 30
No. 18-20	per 100 lbs.	3 45
Nos. 22-24	per 100 lbs.	3 60
No. 26	per 100 lbs.	3 75
No. 27	per 100 lbs.	3 90
No. 28	per 100 lbs.	4 05
No. 30	per 100 lbs.	4 35

POLISHED SHEET STEEL.

No. 24	per 100 lbs	$4 45
No. 26	per 100 lbs.	4 55
No. 27	per 100 lbs.	4 65
No. 28	per 100 lbs.	4 75

SMOOTH STEEL.

Wood's Smooth, No. 20	$3 25
" " No. 22-24	3 30
" " No. 25-26	3 35
" " No. 27	3 40
" " No. 28	3 50

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, 100 lbs	$9 71

PATENT PLANISHED SHEET STEEL.

Dickey Planished Sheet Steel	8½c

SOLDER.

XXX Guaranteed ½ & ½	per lb. 30½c
Commercial ½ & ½	per lb. 29½c
No. 1 Plumbers	26½c

SHEET ZINC.

Cask lots	$9 25
Less than Cask lots	9 50 to 10 10

COPPER.

Copper sheet, base	23c

LEAD.

American Pig	$4 [illegible]
Bar	[illegible] 3
National (White) brands (in less than 100 lb lots), per lb	7c
Sheet.	
Full coils per 100 lbs.	$6 25
Cut coils per 100 lbs.	6 25

ALUMINUM.

Carload lots.	
No. 1 Pure Ingot per lb.,	$0 24
Sheets "	[illegible]3

TIN

Pig tin	$34 00
Bar tin	35 00

HARDWARE.

ADZES.

Carpenters'.	
Plumbs	40%
Coopers'.	
Barton's	1[illegible]%
White's	15%
Railroad	
Plumbs	40%
Ship.	
Plumbs	40%
White's	15%

AMMUNITION.

Caps, Percussion—per 1,000.	
F. L Waterproof, 1-10s	17c
G D	[illegible]c
Musket	68c
Shells, Loaded—	
Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%
Winchester:	
Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%
Gun Wads—per 1,000.	
Winchester Gun Wads	15%

Powder.	Each.
DuPont's Sporting, kegs	$5 25
" " ½ kegs	2 90
" " ¼ kegs	1 60
DuPont's Canisters 1-lb.,	25
" " ½-lb.,	15
" Sm'k'less Drums	23 49
" " Kegs	11 88
" " ½-Kegs	6 08
" " 10-Can Drum	4 86
" " ¼-Kegs	3 12
" Canisters	54

Shot.	
Drop shot, sizes smaller than B, 25-lb. bags, per bag	$1 95
Drop shot, B and larger sizes, 25-lb bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot 25-lb. bags, "	2 20

ANCHORS

Expansion Screw Anchors	60%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb.

ASBESTOS.

Board and Paper	2.75 Cwt.

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch per doz.	12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per doz.	6 60
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-10%
Snell's " " "	40-5%

AWLS.

Brad.		
No. 3 Handled	per doz.	$0 40
No. 1050 Handled	"	95
Shouldered, assorted, 1 to 4,	per gro.	$3 60
Patent asst'd, 1 to 4	"	75
Harness.		
Common	"	95
Patent	"	90
Peg.		
Shouldered	"	1 50
Patent	"	65
Scratch.		
No 1 handled	"	4 80
No. IS, socket handled	per doz.	1 25
No. 7 Stanley		1 80

AXES.

Boy's Handled.		
Lippincott, 3 lb	per doz.	$6 50
Marshall Falls City	"	5 50
Broad.		
Plumbs, West, Pat		33⅓%
" Can. Pat		35%
" Firemen's (handled)	per doz	$19 00
Plumbs, Miners' (handled)	"	9 00
Single Bitted (handled)		
Blood's Champion		$12 00
Blood's Dull Finished		10 50
Rough Rider		8 75
Niagara		7 75
Perfect Premier, Forest Clipper		10 00
Duquesne		6 75
Single Bitted (without handles)		
Blood's Champion		$9 50
Blood's Dull Finish		9 00
Rough Rider		7 25
Electric Chopper		8 25
Duquesne		5 50
Crown		6 25
Double Bitted (without handles).		
Blood's Champion, 3½ to 4½ lbs. per doz		$11 50
Flint Edge	"	9 75
Perfect Premier " "		11 00

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs. advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING

Frary's	40%
Pelouze	20%

BARS, CROW.

Pinch or Wedge Point	per cwt. $3 75

BASKETS.

Clothes		
Small Willow	per doz.	$7 00
Medium "	"	8 75
Large "	"	10 50

Galvanized Iron.	½ bu.	1 bu.	1½ bu
Per doz	$3 90	5 65	7 40

BEATERS.

Carpet.	per doz.
No. 13 Tinned Spring Wire	$0 95
No. 11 Spring Wire coppered	1 30
No. 10 Preston	1 00

Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 60
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch per doz.	$8 50
10-inch "	10 50
Moulders'.	
12-inch "	13 00

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base per doz.	$5 00
Cow.	
High Grade	60%
Kentucky	65&10%

Door.	Per doz.
New Departure Automatic	$6 50
Rotary.	
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00

Hand.	
Hand Bells, polished	40&10%
White Metal	40%
Nickel Plated	30%
Swiss	40&33⅓%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%

Farm, lbs	40	50	75	100
Each	$1.90	2.40	3.55	4.75

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	75&10%
Brass	70&10%
Brass plated	75%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Ford's Ship	40&10%
Irwin	50%
Russell Jenning's	30&10%
Clark's Expansive	65%
Steer's " Small list, $22.00	25%
" " Large " $26.00	25%
Irwin Car	50%
Ford's Ship Auger pattern Car	40&10%
Center	15%
Countersink.	
No. 18 Wheeler's per doz.	$1 60
No. 20 " " "	2 40
American Snailhead "	1 10
" Rose " "	1 20
" Flat "	1 00
Mayhew's Flat "	90
" Snail "	1 40
Dowell	
Russell Jennings	30&10%
Gimlet.	
Standard Double Cut	40%
German Pattern per doz.	$0 60
German "	65
Gouge "	80
Spoon "	15%
Countersink "	1 30
Reamer.	
Jenning's Square "	2 50
Standard Square "	2 00
American Octagon "	1 75
Screw Driver.	
No. 7 Common "	55
No 1 Triumph "	1 25

BLACKING, STOVE. (See Polish).

BLADES, SAW

Butchers'.
Standard, ¾ & 1½-in.....35%
Clock Spring.....35%
Star.....15%

Hack.
Disston's.....25&5%
Flexible.....30%
Star.....20&5%

Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 75
Triumph..... 3 50

BLOCKS.

Snatch.
Wooden.....70&10%
Steel.....50%

Tackle.
Iron Strapped.....70&10%
Com. Steel.....60%

BOARDS.

Stove.
Wabash Crystal..... Net Prices
Wabash Oriental..... "
Wabash Mosaic..... "
Wabash Aluminum..... "
Wabash Art InIay..... "

Wash.
No. 760, Banner Globe, (single) .....per doz. $2 65
No. 652, Banner Globe (single) .....per doz. 3 15
No. 862, White Hen (glass) .....per doz. 3 65
No. 800, Brass King... " 3 60
No. 172, Our Best (soap saver) .....per doz. 3 25
No. 964, Royal Blue (enamel) .....per doz. 3 25

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 70
No. 00, " ..... " 1 30
No. 0, " ..... " 2 75
No. 3, lead..... " 2 75
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30

BOLTS.

Carriage, Machine, etc.
Carriage, ¾x6 and sizes smaller and shorter.....70&10%
Carriage, sizes larger and longer than ¾x6.....65&5%

Machine, ¾x4 add sizes smaller and shorter.....70&10%
Machine, sizes larger and longer than ¾x4.....65&10%
Plow.....60&10%
Stove .....80&10%
Tire.....75%
Wagon Box Strap.....70%

Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%

Barrel.
Cast.....60%
Wrought..... 75&10%
Wrought, bronzed.....50&10%

Flush.
Wrought.....50&10%

Spring.
Wrought .....75&10%
Wrought, heavy.....70&10%

Square.
Cast.....50&10%
Wrought.....70%

BORERS.

Angular.
Miller's Falls.....per doz. $13 75

Bung.
Doz.
Enterprise Mfg. Co.'s No 1..15&5%
" " " No 2..15&5%

BOXES

Mail, No..... 1 2 10
Per doz.....$3.50 5.00 15.00

Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 08..... 3 00
" No. 010..... 3 30

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 50
" No. 2, " 10 00

Shelf.
Cast Iron, bronzed.....50-10&5%
Clover Wrought Steel.....75%
Clover Folding.....65%

BROILERS.

Wire.....70%
No. Crown, Self-basting, 80doz .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star..... " 5 00
IXL..... " 6 75

Well.
Galv'd Qts..... 10 12 14
Per doz.....$2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only 15%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%
Wrought Brass (New List)....50&10%
Wrought Steel, Bright.....75%
Wrought Steel, Japanned .....Net

CALIPERS.

Double.....35%
Inside and Outside.....35%
Wing.....30%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75

Toe.
Shoenberger.....per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Milk.
Holstein.
Nos..... 300 301 302
Gals..... 5 8 10
Per doz.....$17.50 $22.00 $25.60

Gem Pattern.
Nos..... 400 401 402
Gals..... 5 8 10
Per doz.....$17.50 $21.50 $23.50

Illinois Pattern.
Nos. ..... E. 2 E. 3
Gals..... 8 10
Per dozen..... $23.50 $26.50

Jersey Pattern.
Nos..... 80 81
Gals..... 8 10
Per doz..... $23.00 $27.00

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 7 00
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....60%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's,.
Nos..... 1 2 3
Per doz.....$5.60 $5.75 $6.25
Nos..... 4 5 6
Per doz.....$6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85

Bright Ox Chains.
½-in. $7.25; ⅜-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ¼ 3/16 ⅛
Per 100 lbs.$10.80 $8.00 $7.00 $6.20
Inch..... 7/16 ⅜ ⅜ ⅜
Per 100 lbs.$6.00 $5.90 $5.75 $5.65
Inch..... ⅞ 1 1¼
Per 100 lbs.....$5.55 $5 55 $5.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.

Coil Chains, German Pat.
3/0—2/0.....70%
0—1—2 .....66⅔%
3—4—5 .....65%

German Pat. Halter Chains.
4/0 to 0.....66⅔%
1—2—3.....65%
4—5—6.....60%

German Machine Chain.
3/0—2/0—1/0—1.....40&10%

Picture Chains.
Light Brass, 3 ft.....per doz. $0 60
Heavy Brass, 3 ft .... " 1 00

Pump Chain
Galvanized, per 100 lbs.....$5 50

Safety Chain.
Brass.....60%

Sash Chain. (*Morton's.*)
Steel per 100 ft.
0 .....$1 20
2 ..... 1 60
1..... 2 40

Copper.
OR 2 00
2R..... 2 70
1..... 3 35

Champion Metal.
2H..... 3 00
1H..... 4 50

Cable Sash Chain.
Steel 35%
Copper.....25%

Special Steel Loading Chain.
Inch..... ¼ 5/16 3/8
Per 100 lbs.....$16.00 $13.50 $12.50

Stretcher Chains.
5/16-in. $8.50; ⅜-in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's.....70&5%

Trace Chains.
Western Standard.
6½— 6-2.....per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 33c
6½—10-2..... " 38c
Add 2c per pair for Hooks.
Add 2c " for Twist Link

Wagon Stay Chains.
Inch..... ½ 7/16 ⅜
Per 100 lbs.....$6.50 $6.00 $5.5[illegible]

CHALK CARPENTERS'.
Blue.....per gro. 80c
Red..... " 70c
White..... " 60c
Common White School Crayon..... " 11c

CHARCOAL.
In bags.. .....per bag 95c

CHECKS, DOOR.
Blount 30%
Sargent's.....25%

CHIMNEY TOPS.
Iwan's Volcano.....50%

CHISELS.
Box
Inches..... 10 12 14
Round per doz....$3.00 $3.50 $3.8[illegible]
Flat " ... 4.00 5.00 5.5[illegible]

Cold.
Good quality, ⅜ in. and larger.....per lb. .13c
Smaller size per doz.....

Socket, Framing and Firmer.
Clover.....75&10%

Tanged, Firmer.
With handles.. ..... 20%

Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.
Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.
Anti-Bent Wood,
Gal..... 5 7 10
Each.....$3.90 $4.60 $4 85
Belle, Barrel..... 65&7½%
Common Dash, Gal. 4 5 6
Per doz.....$9.00 $10.00 $10.80
Union, Gal..... 5 7 10
Each.....$3.75 $4.35 $5.40

CLAMPS.

Adjustable.
Martin's.....30%

Carpenters'.
Steel Bar.....25%

Hose.
Sherman's, brass, ½-in., per doz.. 42c
Double brass, ½-in., " 90c

Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.25; No. 3 $8.75.

CLAWS, TACK.
Cast, wood hdle.....per doz.45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 50

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%

Pot.
Wire.....per doz. $0 75

Side-Walk.
Steel.....per doz. $3 25
XLCR .....65&5%

CLEAVERS

Family.
Griffin, Inch..... 6 7 8
Per doz.....$5 50 $5.75 $6.25
Royal.....per doz. 2 25

Butchers.
Plumbs.....25%

CLEVISES

Malleable .....6c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%

Damper.
Standard.....per doz. 65c
Troy..... " 38c

Hame..... " 17

CLOTH

Emery.
Star.....50%
B. & A.....50%

Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll... 3 00
4 and 5..... " .. 3 25
6..... " .. 3 50
7 and 8..... " .. 4 00

Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 15

COCKS AND FAUCETS.
Compression Plain Bibbs. .60, 10&5%
Lever Bibb Cocks.....60, 10&5%
Compression Hose Bibbs ..50—10&5%

Telegraph Faucets (new list)..50—5%
Racking Cocks (new list)...60&10&5%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz.....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets.....70%

COLLARS, STOVE PIPE.
Inches..... 5 6 7
Plain Tin..per gro.$1.90 $2.40 $3.50
Japanned Tin " 3.00 3.50 4.25
Lacquered Tin " 3.60 4.20 4.80

COMBS, CURRY.
Nos... 000 11 15 39 89 108
Per
Doz..$.37 .60 1.90 .90 1.15 .80
Nos... 299 320 390 532 620 1400
Per
Doz.$1.05 .85 1.35 1.20 .75 1.40

COMPASSES.
Carpenters'.....60%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb..... .....per lb 36½c
1½ lb..... 33½c 2 lb... " 32½c
3 lb and larger..... " 30c

CORD.

Picture
White Wire (new list) 85%

Sash.
Regal Brand..... per lb 35c
Puritan Brand..... " 25c

CORKSCREWS.
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.
All sizes—new list.....90%

COUPLINGS, HOSE.
Brass.....per doz. $1 00
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.
Morgan's Grapevine...per doz. $22 25

CRAYONS—See Chalk.

CROW BARS.

nch or Wedge Point.....per lb 3½c

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%
Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.00
Slaw and Crout.
3-knife Crout.....per doz. $11 50
1-knife Slaw..... " 1 75
2-knife Slaw..... " 2 50
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American.....50%

DIES AND STOCKS.

Discount.....40%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Checks.

DOORS, SCREEN.

⅞ in. 4-panel, painted..... Net Prices
1⅛ in. 4-panel, painted..... "
1⅛ in. 3-panel, natural pine, fancy..... "

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12..... " 2 00
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $11 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....50%
Champion Pattern.....70%
Clark s Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED

Terms, 2% for cash. Factory shipments generally delivered.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS—Stove Pipe.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.80 $0.85 $1.20
Plan'd, " 2.00 2.25 2.90
Corrugated Stove
Inches..... 5 6 7
Smooth, per doz..$0.75 $0.90 $1.20
Pol'd, " .. 1.40 1.65 2.35
Plan'd, " .. 2.25 2.90 3.75
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished. " .. 1.75 1 95 2.55

ELBOWS—Conductor Pipe.

Plain, round..... 75%
Round, corrugated..... 75%
Square, corrugatee.....60&10%

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size .....5-lb. pkgs. ½ kegs, kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... c 3c 3c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 00
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....85&10%
Iron.....90%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70%
Nicholson's—
American.....75&10%
Arcade.....75&10%
Black Diamond.....70&10%
Eagle.....75&10%
Great Western.....75&10%
Kearney & Foot.....75&10%
McClellan.....75&10%
Nicholson.....70&10%
J. Barton Smith.....75&10%
X-F Swiss Pattern.....40&10%
Simonds'..... 70%
Disston's.....75&10%
Heller's..... 70%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Hay.
2-tine.....60%
3 " 60%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine 60%

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20
White Mountain.
Qts..... 1 2 3 4 6
Each.....$1.25 1.60 1.90 2.20 2.80
Qts..... 8 10 12 15 20
Each...$3.60 4.65 5.85 7.00 9.00

Polar Star.
Qts..... 1 2 3 4
Each.....$.75 1.00 1.50 2.00

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90&20%
Double.....90&25%

GLASSES, LEVEL.

3-inch.....per doz. $0 70
2½-inch..... " 55

GLUE.

Bulk.
B Amber.....per lb. 18 c
A White..... " 18 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond..... ....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 25
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 6 8 10
Per doz.....$7.25 9.75 12.00
Loose.
Per ton.....$22 00@$23 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.75 3.60 3.35
Common Bearing 1 2 3
Each.....$3.35 3.15 3.00

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
.....50&10%
Engineers'.
.....50&10%
Farriers'.
.....40&10%
Machinists'.
.....60&5%
Nail.
.....40&7½%
Quaker City.....per doz. $3 85
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
.....40%
Shoe.
Cast.....per doz. $0 95
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs 75%
5 lbs. and over.....75&10%
Masons'.
Single and Double Face.....70&10%

HANDLES.

Auger.
Common Assorted....per doz. $0 55
Pratt's Adjustable, Nos. 1 & 2, per doz..... 4 75
Ives' Adjustable.....per set, 1 35
Axe.....35%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 34c; Large, 42c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 30
Coal Pick.....40%
Drifting Pick.....40%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. 36 to 75c
Blacksmiths'..... " 40c@75c
Machinists'..... " 45c@80c
Hatchet..... " 40
Hay and Manure Fork.....35%
Hoe and Rake.....35%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....35%

HANGERS.

Barn Door.
U. S. Rolled Bearing.....60&10%
Matchless.....50&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse Big Twin.....25%
Conductor P.
Iwan's Perfection.....50%
Eave Trough.
Baker's.....per gro. $2 25
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 00
Lane's Standard..... " 3 50
Lane's New Model.... " 3 16
Le Roy Noiseless..... " 4 00
Richards'.....40-10%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crescent.....50&10%
Cast Claw.....per doz. $1 10@1 35
Cast Shingling.... " 1 25
Germantown.....30%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity.. per doz. sets, $1 00
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 00
Gate.
Clark's..... 1 2 3
Hgs & Ltch.. doz. $2.50 3.25 4.25
Hinges only... " 2.00 2.50
Latches only . " .90 .90
Knuckle.....per doz prs. $6 00
Leed's..... " sets 6 75
Superior..... " prs. 9 50
Screw Door.
Cast iron.....gross $6.65
Steel..... " 6.75
Spring.
Bommer.....50%
Chicago.....25&5%
Columbia Dbl. Acting...40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....40%
New Idea.....per gro. $7 20
Oxford.....20%
Wrought Iron.
New Lists .....
Light Strap Hinges.....70&10%
Heavy Strap Hinges.....75%
Light T Hinges.....66⅔%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....70%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $4 25
14 to 20 in..... " " 4 00
22 to 36 in..... " " 3 75
Screw Hook and Eye.
⅝ in.....per 100 lbs. $6 75
½ in..... " " 7 75
⅜ in..... " " 9 75

HOES.

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....70%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....70&10%

HOLLOW WARE—See Ware.

HOOKS.

and Eyes.
Brass.....60%
Iron.....70%
Awning.....per gro. 80&10%
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 5 7 10 12
Per doz.....$1.90 2.10 2.25 2.65
Humason & Beekley's..per doz. $2 50
(See Goods, Bright Wire.)
Buck.
Common Axe Handle..per doz. $7 00
Chain.
Inch..... ¼&5/16 ⅜ 7/16 ½
Per 100...$7.00-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....80%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, rivetted, painted red.....per doz. $2 25
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Gypsy..... " 2 50
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50%@50&10%
Potato and Manure.....66⅔%
Screw.
Brass.....85%
(See Goods, Bright Wire.)
Seat Spring.....per lb. 5½c

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 50

HOSE, GARDEN.

	Coupled, per ft.
Velvet, 3 ply-¾" guar. press.....	7½c
Eclipse, " " "	9 c
Diamond " " "	11 c
Geneva " " "	14 c
Illinois " " "	20 c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press. 400 lbs. 11½
Special " " " 300 " 9½c
Leader " " " 100 " 7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$3.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40

IRON.

See Metals.—First column.

IRONS.

Curling.
C.....per doz. $0 40
B..... " 50
A..... " 58
Princess..... " 70
Thelma..... " 1 25
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 3 75
No. 70 Asbestos.....$1 20 net
No. 100 " ..... 1 35 net
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's,
No. 50 J. Enterprise, per set 93
No. 55 J. " " 90
No. 50 T. " " 1 00
No. 55 T. " " 96
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz. $5 25
Double Duck Nest .. " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Miller 50%
Oliver,
Nos..... 0 00
Each..... $2.00 $2.00

Standard.
No..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard..... (New List)..50%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 9 00
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 60
Common, Double..... " 90
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander's..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 90
Porcelain..... " 1 00
Jet..... " 1 00

LADDERS.

Common Long
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $9 00
2¾-in. Regular..... " 7 50
3 -in. Regular..... " 8 00
Tubular.
Dietz & Hams'.....net prices

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes
60-ft. Jute.....per doz. $0 95
72 ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 25

LINING, STOVE.

Bricks.....per crate. 42c

MACHINES.

Boring.		Without Augers	With Augers
Angular.....	per doz.	3 00	4 40
Upright.....	"	2 60	4 00

Leather Riveting.
Chicago, Pomeroy....per doz. $9 00
Excelsior..... " 2 00
Handy..... " 2 00
Little Giant..... " 3 00
Pony, Pomeroy..... " 7 20
Washing.
Majestic..... 5 25
Typhoon..... 6 00
F. F. V..... 6 50
Water Motor.....12 00

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 50
" Lignumvitæ... " 4 75
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....70%
Extra.....60%

MAULS.

Iron, lbs.....	10	13	16	18
Per doz....	$4.00	4.50	5.25	5.60
Wood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	½ bu.
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MILLS, COFFEE.

Enterprise.....25%
Parker.....50&5%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1¼ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Gladiator—B. B.
Inches..... 16 18 20
Each..... 6.50 7.25 8.00
King Universal—B. B.
Each..... 5.25 5.75 6.00
Inches..... 14 16 18
Big Giant..... 3.50 3.90 4.25
Little Giant..... 2.50 2.65 2.75

NAILS.

Cut Steel .....rates, $2 00
Cut Iron..... 2 15
Wire.
Small Lots..... $2 00
Carload Lots..... 1 93
Cement Coated..... 1 80
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....30-5%
Clover Leaf .....per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....35%
Furniture.....30%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized before weaving. 80, 20&5%
Galvanized after weaving.... 80&20%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5 6
Per dozen..... $4.65 6.75
End and Diagonal Cutting.
Swedish Side. Inches 5 6
Per dozen..... $4 50 5 75
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 90
Magic..... " 3 60
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.
In ¼ 5/16 ⅜ 7/16 ½ ⅝ ¾
lb 9½c 8c 6½c 5¾c 5½c 5c 4½c
Square Tapped.
In. ¼ 5/16 ⅜ 7/16 ½ ⅝ ¾
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....70%
Zinc.....60&10%
Engineers'.
Cannon.....35%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 12 14
Flat.....per doz. $5.50 6.00
Round..... " 3.50 3.80
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 00
20-qt., " " " 3 45
20-qt., with gauge.... " 4 00
Sap.
10-qt., Galvanized, per 100....$17 00
12-qt., " " 23 00
14-qt., " " 23 75
16-qt., " " 30 00
10-qt.,IC Tin..... " 2 00
12-qt., " .... " 17 00
14-qt., " .... " 20 00
10-qt.,IX Tin.... " 1 00
12-qt., " .... " 20 00
14-qt., " .... " 22 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.90 4.10 5.00 5.50
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.80 2.05 2.25
Wood.
Cable, 2-Hoop.....per doz. $1 90
Cable, 3-Hoop..... " 2 10
Cedar, 3-Hoop..... " 3 15
Standard, 2-Hoop.... " 2 00
Standard, 3-Hoop.... " 2 25

PANS

Dripping.....65%
Fry
Common .....75&10%
Acme 60%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn .. 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs.$1 25
Tarred..... " 1 35
Tarred Felt..... " 1 80
No. 20, Red Rosin....per roll, 35
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Ivory .....per lb. $3 75
Rag..... " 2 25

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 7 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore..... 70&10%
Drifting and Poll Picks.....70%
Plumbs, Railroad..... 70&10%
Surface.....70%

PINCERS.

Carpenters', cast steel.

Inches.....	6	8	10	12
Per doz.....	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $1 00
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	70&10%...	50&10&2½%
Pittsburgh..	75&10&5%.....	60%
Central.....	75&10%.....	60%
Northwestern..	75&7½%.....	60%
Western	70&12½%	50&12½%
Tennessee	70&10%	50&12½%
Southern.....	70%	50&12½%
Southwestern	70%.....	50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils .....per lb. 7½c
Cut coils..... " 7¾c
Stove

Acme—Inches....	5	6	7
Smooth, per jt...	8 c	8½c	10½c
Planished, "	30 c	31 c	38 c
Peerless—Smooth,	7½c	8 c	9½c
Polished.....	14½c	15½c	18 c
Planished.....	28 c	31 c	35½c
Made-up—Inches..	5	6	7
Smooth.....	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr. jt..11c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

	5"	6"	7"	7"to6"
	—Cents—			
Battle Axe Blue...	7	7¾	9½	10½
Can't Slip " ..	7½	8½	10	11
Peerless " ..	7½	8½	10	11
Duplex " ..	10	11	13	14
Yale, Rus. Fin....	15	16	17	18
Duplex Planished.	29	31	37	38
Galvano, Gal.....	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Crating made-up pipe extra.

Wrought Iron Gas Pipe.
⅛@¼-in., black.....discount, 60%
⅜@½-in., black... .... " 60,10&5%
¾-in. to 6-in , black... " 70%
7-in. to 12-in., black... " 62½%
⅛@¼-in., galvanized.... " 42%
⅜@½-in., galvanized.... " 50%
¾-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES

Sargent Iron Bench.....60%
Stanley Iron Bench .....Nets

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Giant, Button's—80% off list.
Cutting
Bernard's.....30%
Lodi.....50%
Upper End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co.... Net
Fencing.
Black Bull.....per doz. $8 25
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%

Gas.—Inches..	7	8	10	12
Per doz.....	$3.00	3.50	4.50	5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common .....Nets
Cook's.....40%
Davis' Iron 25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
Black Silk, No. 50, ½-gallon per doz..$7 00
Black Silk, No. 60, 6-oz. cans, per doz...1 00
Black Silk, No. 70, 1-pt. cans, per doz.....2 25
Black Silk, No. 80, 1-quart, per doz ...3 75
Black Silk, No. 90, 1-gallon, per doz....12 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro 5 00
Stove.
Black Eagle, 1-lb. cans, pr. gr. $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans.....per doz. 75
Paste, ½-lb. cans ..... " 1 00
Liquid, ½-pt. cans..... " 1 00
Liquid, 6-oz. cans... " 75
½ pt. Air Drying Iron Enamel..... " 1 25
Black Jack, ¼-lb. cans. " 9 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 00
Square, 2-qt..... " 1 60
4-qt..... " 3 00

POTS, FIRE.

Clayton & Lambert's,each,$4 00@6 00
Gate City.....each, 6 25
Gem.....each,$6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 80%

PULLERS.

Cork.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 80
Giant Pattern..... " 9 00
Jumbo..... " 9 00
Tack—Giant ..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 80
Wood Wheel, 6-in., pass knot, ...per doz. 2 55
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 18
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos.....	1	2	3	4
Each.....	$1.00	1.15	1.30	1.70

Spray.
Blizzard.....per doz.$14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 25
Machine.....per lb 19
Saddlers'.
Common ... .per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 3 00

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½c
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 80@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2 75
Jumbo, 36 teeth..... " 6 00

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Star.....50%
Tree Brand.....50%

RAZOR STROPS.

Star (Honing).....50%

REGISTERS.

(All Sizes)

Japanned, Bronzed and Plated..75%
White Porcelain Enameled.....65%
Solid Brass and Bronze Metal....40%
Single Valve (Baseboard and Sidewall).....70%

REGISTER FACES

Japanned, Bronzed and Plated
4x6 to 14x14.....75%
14x14 to 38x42.....75&10%
Heavy Round Gratings.....75&10%
White Porcelain Enameled...50&10%
Solid Brass or Bronze Metal.....40%

RINGS.

Bull.

Copper.....	2½ in.	3 in.
Per doz.....	$1 60	$2 00
Rea's Improved Self-Piercing copper, pr doz	2 00	....
Steel, per doz.....	90	1 00
Nickel plated.....	1 35	....

and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 55
Major Rings..... " 60
Perfect Ringers..... " 1 20
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 40

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....70%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils. . " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality..... 11 c
Hardware Grade, rates, per lb.. 10½c
Pure Manila.
1st quality..... per lb.14 c
Hardware Grade, rates... " .12½c

RULES.

Boxwood..... Nets
Ivory..... Nets

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Atkins'.....30%
Disston's.....25%
Jackson's.....25%
Butchers'.
Atkins'.....40&10%
Disston's.....30%
Circular.
Atkins'.....50%
Disston's.....50%
Hiles'.....50&10%
Simonds 50%
Compass.
Atkins'.....35%
Common.....per doz $1 35@1 60
Disston's 25%
Cross-Cut
Atkins'.....35%
Disston's.....45%
Simonds.....30%
Dehorning.
Atkins'.....per doz. $5.75
Disston's.....per doz. $6 75
Grooving
Atkins'.....50%
Hack.
Atkins'.....30%
Disston's.....25%
Simonds 50%
Star.....25%
Hand and Rip.
Atkins'.....35%
Disston's No. 7.....30%
Disston's Nos 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprize, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Atkins'.....35%
Narrow Band
Atkins'.....50%
Simonds 30%
One Man.....40%
Atkins'.....40%
Panel
Atkins'.....35%
Disston's No. 7.....30%
Pruning.
Atkins'.....30%
Disston's 25%
Rift
Atkins'.....50%
Simonds 45%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCISSORS.

Star 60%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel . . . per doz . 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea..	4.35	4.00	3.75

SCREEN DOOR HINGES.

Cast iron.....gross $6.65
Steel..... " 6.75

SCREWS.

Bench.

Iron, in.....	1	1¼	1½
	$3.50	4.00	5.00

Wood, white maple...per doz. $3 50
Hand—Wood.....70% new list
Hand Rail.....70-10%
Jack.. .....70-10%
Lag or Coach—all sizes, gimlet pointed.....75%
Saw—Centennial

Nos ..	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5&10%
R H Blued..... 85&5&10%
F. H. Jap'd..... 82½&5&10%
F. H. Brass.. 80&5&10%
R. H. Brass.....77½&5&10%
R. H. Nickel Plated.... 77½&5&10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 00
Clipper, grass..... " 8 25
Clover Leaf Dutchman. " 7 50
Honest Dutchman..... " 7 50
Be Ve Be..... " 7 50

SHAVING SETS

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'..... 50%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 50
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's ..... 50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
Cailfornia Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip., doz.... 11.00 11.25 12.25
Star 60%
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.50 .65 .90
Hatfield's.
Per set..... $0.80 1.10 1.80

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal.
No 2 Woodford.....per doz. $5 50
No. 182... ..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $12 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 50
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....60%

SNATHS.

Double Ring, Bush.....per doz. $6 50
Patent Loop, Bush..... " 7 00
Patent Loop, Grass..... " 6 00

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%
Star.....50%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c
Reliance.
Per doz ... light, $1.15; heavy, $2 50
Star.
Per doz .... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 20
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....40% New List
(Add for bluing, $2.50 per doz., net.)
Mitre.
Try.
Try and Bevel. } Nets
Try and Miter.
Fox's.....per doz. $6 00
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb . . 9½@9¾c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 10
Galvanized..... " 2 35
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 38 c
Emery.....60% @60&5%
Oil—Mounted.
Arkansas Hard.....per doz. $23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6¾
Oil—Unmounted.
Arkansas Hard.....per lb $2 40
Arkansas Soft ..... " 1 20
Lily White..... " 40
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 40
Scythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille .... " 7 00
Quinnebog..... " 6 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 00

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 80
Skate..... " " 60@70

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&50%
Blued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&40%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 34c
Canvas Nails.....70%
Clout Nails.....70-5%
Hungarian Nails.....75%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway 25%

TRAPS.

Sargent's Game.
10—11—11½.....75%
72—73—74.....70&5%
32—33—34.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Holdem Mouse.....$2 25
Holdem Rat..... 4 00
Sure Catch Mouse..... 30
Sure Catch Rat..... 75
Delusion Mouse..... 90

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers .
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag .....each $2 75
Warehouse..... 50&10%
No. 1 2 3
Half Ironed.....$3 00 3 85 5 50
Full Iron..... 3 45 4 50 6 45

TUBS, WASH

Standard, Wood. Ex.
Nos..... 3 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$5.25 6.00 7.00

TWINE.

Per lb.
3-ply Cotton Wrapping 28c
4 " " " 28c
4 " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " Wrapping on tubes....27c
3 " " " cones. ..25c
4 " " " " " 25c
India Hemp, ½-lb. balls 21c
" " ½-lb. " 20c
" " ½-lb. " .....doz. 75c
2-ply Jute, ½-lb. " 16c
3-ply Jute, ½-lb. " 15c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 32 31 30
Med..... " 32 31 30
Hard..... " 38 34 33
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26½c
" " " " 27.....26½c
Bagging " 23c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6¾c
200 strand.....—c

VISES.

Phœnix..... .....30%
Phœnix Oval Slide,
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel..... 20%
Parker's Victor..... 20%
Parker's Swivel Base..... 20%
Parker's Re-inforced 20%
Parker's X Series..... 20%
Parker's Combination 20%
Solid Box.....40&5%
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.... .....45%
Enameled Ware.....33⅓%
Scotch Bowls.....60&5%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Neverbreak Flat and Round Bottom Kettles .....60&5%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots,
Tinned.... .....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb.:
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
9c 6½c 5c 4½c 4¼c 4¼c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
10 7c 6c 5½c 5c 5c 4½c

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10¾
Saw..... " 8½

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Hoosier, per doz..... 3 50 to 4 60
Shaw Perfected ..... 3 00 to 3 75

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b Chicago....pr ton, 24 00

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 15.00

WIRE.

Barbed. Painted. Galv'd
Carloads .. per 100 lbs. $1 92 $2 33
Less than car " 2 00 2 40
Brass.
In coils.....20%
In 1-lb. spools, new list..... 50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $1 90
Nos. 6 to 9, Galv'd.. " 2 30
Hair—New List..... 60%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . 80%@80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard..... 50&10%
Alligator No. 1.....90cnet
Always Ready.....50%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70&10%
Bemis & Call's:
Adjustable S, 40&5%; Adjustable S Pipe, 40&5%; Briggs Pattern, 40%; Combination Bright, 50%
Steel Handle Nut.....50&5%
Combination Black.....50&5%
Merrick Pattern.....50&5%
Double End Adj. S.....40&5%

WRINGERS.

No. 500, Royal.....per doz. 38 50
No. 350, Universal..... " 33 00
No 300, Novelty..... " 33 00
No. 310, Keystone.... " 33 00
No. 100, Rival..... " 27 50
No. 380E, Universal.. " 38 00
No 790, Guarantee ... " 43 50
No 770, Bicycle ..... " 38 00
No. 110, Guarantee.... " 38 50
No. 110, Domestic.... " 33 00
No. 110, Brighton..... " 27 50
No. 740, Bicycle..... " 38 00
No. 22, Guarantee.... " 38 50
No. 22, Domestic.... " 33 00
No. 22, Pioneer..... " 27 50
No. 2, Superb..... " 25 00

ADVERTISER'S INDEX

ALPHABETICAL LIST.

A. B. Stove Company 4
American Rolling Mill Co 51
American Sheet and Tin Plate Co 53
American Steel & Wire Co 63
Ashton Mfg. Co 60
Auld & Conger Co 58
Avery Stamping Co 64
Bemis & Call Hdw. & Tool Co 1
Berger Bros. Co 58
Berger Mfg. Co 52
Bernz, Otto 60
Bertsch & Co 69
Boynton Furnace Co 6
Brauer, A. G. Supply Co 10
Broadbelt Mfg. Co 64
Bullard & Gormley Co 68
Burgess Soldering Furnace Co 60
Burton Co., W. J 56
Canton Art Metal Co 55
Cincinnati Iron Fence Co 65
Clark, Smith Hardware Co 56
Clayton & Lambert Mfg. Co 60
Cleveland Castings Pattern Co 13
Cooper Oven Thermometer Co 13
Co-Operative Fdy. Co 7
Cope, Geo. W. Stove Pattern Works 13
DeKalb Wagon Co 66
Delta File Works 64
Dieckmann Co., Ferdinand 56
Dixon, Jos., Crucible Co 49
Dobbins Mfg. Co 60
Dreis & Krump Mfg. Co 58
Eagle Woodenware Mfg. Co 54
Fanner Mfg. Co 13
Follansbee Bros. Co 55
Forest City Fdy. & Mfg. Co 3
Foy, Co., The E. A 49
Franklin Machine Works 66
Friedley-Voshardt Co 58
Fuller, Otis L 59
Globe Gas Light Co 60
Globe Ventilator Co 57
Harrington & King Perforating Co 55
Haynes-Langenberg Mfg. Co 6
Hemp & Co 13
Henry Furnace Co., T. E 9
Hessler Co., H. E 57
Hooper, C. N 49
Hussey & Co., C. G 56
Icy-Hot Bottle Co 65
Inland Steel Co 50
Kelsey Heating Co 2
Kimball Bros. Co 66
La Belle Iron Works 51
Lalance & Grosjean Mfg. Co 61
Lee, Thomas 57
Lufkin Rule Co 64
Lyon, Conklin & Co 60
Merchant & Evans Co 54
Meyer & Bros. Co., F 11
Michigan Safety Furnace Pipe Co 14
Milwaukee Corrugating Co 67
Monroe Foundry & Furnace Co 8
Mullins Co., W. H 55
Munsell Co., Eugene 13
National School of Pattern Drafting 49
National Sheet Metal Roofing Co 58
Nelson Mfg. Co 8
Niagara Machine & Tool Works 59
Nicholson File Co 61
Nickel Plate Stove Polish Co 13
North Bros. Mfg. Co 65
Peck, H. E 48
Peck-Hammond Co., The 7
Pittsburgh Steel Co 63
Pullman Auto. Ventilater Co 57
Puritan Cordage Mills 64
Quality Stove & Range Co 4
Quincy Pattern Co 13
Robinson Mfg. Co., J. M 67
Rochester Radiator Co 9
Ruby Chemical Co 56
Scheible & Moncrief Heater Co 9
Schwab, R. J. & Sons Co 8
Sheldon Slate Co 57
Smith, Chas 8
Smith Co., Chas 10
Smith, H. Collier 59
Smith & Hemenway Co 59
Sprague Fdy. & Mfg. Co 8
Standard Ventilator Co 57
Stanley Rule & Level Co 64
Stark Rolling Mill Co 53
Stoll Co., D. H 59
Stolz Co., F. D 8
Sullivan-Geiger Co 56
Symonds Register Co 11
Tanner & Co 54
Taylor & Boggis Fdy. Co 65
XXth Century Mfg. Co 66
Universal Stamping & Mfg. Co 65
Utility Stove & Range Co 2
Vedder Pattern Works 13
Ward-Dickey Steel Co 67
Waterloo Register Co 11
Washburne & Co., E. G 57
Weiss, H. & Co 59
Weller Pattern Co 13
Wheeling Corrugating Co 52
Worth Wire Works 63
Youngstown Sheet & Tube Co 62

CLASSIFIED LIST.

Barb Wire.
American Steel & Wire Co., Chicago, Ill.
Pittsburgh Steel Co., Pittsburgh, Pa.

Boilers—Steam.
Boynton Furnace Co., Chicago, Ill.
Schwab & Sons Co., R. J., Milwaukee, Wis.
Smith Co., Chas., Chicago, Ill.

Boiler Handles.
Berger Bros. Co., Philadelphia, Pa.

Bottles—Icy-Hot.
Icy-Hot Bottle Co., Cincinnati, O.

Brackets—Sink.
Hessler Co., H. E., Syracuse, N. Y.

Brass and Copper.
Hussey & Co., C. G., Pittsburgh, Pa.

Buckets.
Eagle Woodenware Mfg. Co., Hamilton, O.

Carpenters' Tools.
Smith & Hemenway Co., New York, N. Y.
Stanley Rule & Level Co., New Britain, Conn.

Ceilings.
Berger Mfg. Co., Canton, O.
Burton Co., W. J., Detroit, Mich.
Canton Art Metal Co., Canton, O.
Friedley-Voshardt Co., Chicago, Ill.
Kanneberg Roofing & Ceiling Co., Canton, O.
Milwaukee Corrugating Co., Milwaukee, Wis.
Mullins Co., W. H., Salem, O.
Wheeling Corrugating Co., Wheeling, W. Va.

Cement—Roofing.
Auld & Conger Co., Cleveland, O.

Chimney Caps.
Standard Ventilator Co., Lewisburg, Pa.

Combination Heaters.
Smith Co., Chas., Chicago, Ill.

Conductor Pipe.
American Rolling Mill Co., Middletown, O.
Berger Bros. Co., Philadelphia, Pa.
Berger Mfg. Co., Canton, O.
Burton Co., W. J., Detroit, Mich.
Canton Art Metal Co., Canton, O.
Clark, Smith Hdw. Co., Peoria, Ill.
Dieckmann Co., F., Cincinnati, O.
Friedly-Voshart, Chicago, Ill.
Hussey & Co., C. G., Pittsburgh, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
Mullins Co., W. H., Salem, O.
Wheeling Corrugating Co., Wheeling, W. Va.

Conductor Hangers.
Berger Bros. Co., Philadelphia, Pa.

Cord—Sash.
Puritan Cordage Mills, Louisville, Ky.

Cornices.
Berger Mfg. Co., Canton, O.
Burton Co., W. J., Detroit, Mich.
Canton Art Metal Co., Canton, O.
Friedly-Voshardt Co., Canton, O.
Kanneberg Roofing & Ceiling Co., Canton, O.
Mullins Co., W. H., Salem, O.

Cornice Brakes.
Bertsch & Co., Cambridge City, Ind.
Dreis & Krump, Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Robinson Mfg. Co., J. M., Cincinnati, O.

Crimping Machines.
Bertsch & Co., Cambridge City, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.
Robinson Mfg. Co., J. M., Cincinnati, O.
Stoll Co., The D. H., Buffalo, N. Y.

Culvert Machinery.
Bertsch & Co., Cambridge City, Ind.
Stoll Co., D. H., Buffalo, N. Y.

Cutlery.
Smith & Hemenway Co., New York, N. Y.

Cut-Offs—Rain Water.
Milwaukee Corrugating Co., Milwaukee, Wis.
Sullivan-Geiger Co., The, Indianapolis, Ind.

Dampers.
Howes Co., S. M., Boston, Mass.
Taylor & Boggis Fdy. Co., Cleveland, Ohio.

Dies.
Stoll Co., D. H., Buffalo, N. Y.

Eaves Trough.
Berger Bros. Co., Philadelphia, Pa.
Berger Mfg. Co., Canton, O.
Burton Co., W. J., Detroit, Mich.
Canton Art Metal Co., Canton, O.
Empire Iron & Steel Co., Chicago, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
Mullins Co., W. H., Salem, O.
Wheeling Corrugating Co., Wheeling, W. Va.

Elbows.
Canton Art Metal Co., Canton, O.

Elbows—Conductor Pipe.
American Rolling Mill Co., Middletown, O.
Dieckmann Co., F., Cincinnati, O.
Milwaukee Corrugating Co., Milwaukee, Wis.

Elevators.
Franklin Machine Works, St. Paul, Minn.
Kimball Bros. Co., Council Bluffs, Ia.

Enameled Ware.
Avery Stamping Co., The, Cleveland, O.
Lalance & Grosjean Mfg. Co., Chicago, Ill.

Facings.
Dixon Crucible Co., Jos., Jersey City, N. J.

Fence Stays.
Worth Wire Works, Kokomo, Ind.

Fencing—Iron.
Cincinnati Iron Fence Co., Cincinnati, O

Fencing—Wire.
American Steel & Wire Co., Chicago, Ill.
Pittsburgh Steel Co., Pittsburgh, Pa.

Fenders—Folding.
Dow Wire & Iron Works, Louisville, Ky.

Files.
Delta File Work, Philadelphia, Pa.
Heller Bros. Co., Newark, N. J.
Nicholson File Co., Providence, R. I.

Food Choppers.
Smith & Hemenway Co., New York, N. Y.

Furnaces—Hot Air.
Boynton Furnace Co., Chicago, Ill.
Co-operative Foundry Co., Rochester and Chicago.
Forest City Fdy. & Mfg. Co., Cleveland, O.
Haynes-Langenberg Mfg. Co., St. Louis, Mo.
Henry Furnace Co., T. E., Cleveland, O.
Kelsey Heating Co., Syracuse, N. Y.
Monroe Fdy. & Furn. Co., Monroe, Mich.
Peck-Hammond Co., Cincinnati, O.
Scheible Moncrief Furn. Co., Cleveland, O.
Schwab, R. J., & Son Co., Milwaukee, Wis.
Smith, Chas., Chicago, Ill.
Smith Co., Chas., Chicago, Ill.
Sprague Fdy. & Mfg. Co., Council Bluffs, Ia.
Wrought Iron Range Co., St. Louis, Mo.

Furnace Pipe and Fittings.
Meyer & Bro. Co., F., Peoria, Ill.
Michigan Safety Furnace Pipe Co., Detroit, Mich.

Furnaces—Soldering.
Ashton Mfg. Co., Newark, N. J.
Bernz, Otto, Newark, N. J.
Burgess Soldering Furnace Co., Columbus, O.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Globe Gas Light Co., Boston, Mass.
Ringen Stove Co., St. Louis, Mo.

Furnace Repairs.
Brauer Supply Co., A. G., St. Louis, Mo.

Gates.
Pittsburgh Steel Co., Pittsburgh, Pa.

Grease-Graphite.
Dixon Crucible Co., Jos., Jersey City, N. J.

Handles—Sad Iron.
Universal Stamping & Mfg. Co., Cleveland, O.

Hardware Jobbers.
Bullard & Gormley, Chicago, Ill.
Clark, Smith Hdw. Co., Peoria, Ill.

Hardware Specialties.
Avery Stamping Co., Cleveland, O.
Bemis & Call Hdw. & Tool Co., Springfield, Mass.
Berger Bros. Co., Philadelphia, Pa.
Broadbelt Mfg. Co., Baltimore, Md.
Fanner Mfg. Co., Cleveland, O.
Foy Co., The E. A., Cincinnati, O.
Icy-Hot Bottle Co., Cincinnati, O.
Lufkin Rule Co., Saginaw, Mich.
Nicholson File Co., Providence, R. I.
North Bros. Mfg. Co., Philadelphia, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
Smith & Hemenway Co., New York, N. Y.
Stanley Rule & Level Co., New Britain, Conn.
Taylor & Boggis Fdy. Co., Cleveland, O.

Heaters—Tank.
Nelson Mfg. Co., Deerfield, Wis.

Heaters—Water Trough.
Nelson Mfg. Co., Deerfield, Wis.

Hollow Ware.
Avery Stamping Co., Cleveland, O.

Ice Cream Freezers.
North Bros. Mfg. Co., Philadelphia, Pa.
Smith & Hemenway Co., New York, N. Y.

Iron Enamel.
Nickel Plate Stove Polish Co., Chicago, Ill.

Kitchen Utensils.
Avery Stamping Co., Cleveland, O.
Lalance & Grosjean Mfg. Co., Chicago, Ill.

Latches.
Broadbelt Mfg. Co., Baltimore, Md.

Lightning Rods.
Foy Co., The E. A., Cincinnati, O.

Lineman's Tools.
Smith & Hemenway Co., New York, N. Y.

Metal—Perforated.
Harrington & King Perforating Co., Chicago, Ill.

Metal Polish.
Nickel Plate Stove Polish Co., Chicago, Ill.

Metal Shingles.
Burton Co., W. J., Detroit, Mich.
Canton Art Metal Co., Canton, O.
Milwaukee Corrugating Co., Milwaukee, Wis.
National Sheet Metal Roofing Co., Jersey City, N. J.
Wheeling Corrugating Co., Wheeling, W. Va.

Mica.
Brauer Supply Co., A. G., St. Louis, Mo.
Munsell Co., Eugene, New York and Chicago.

Miters.
Friedley-Voshardt Co., Chicago, Ill.

Mops.
Eagle Woodenware Mfg. Co., Hamilton, O.

Motors—Water.
Smith & Hemenway, New York, N. Y.

Ornaments—Sheet Metal.
Canton Art Metal Co., Canton, O.
Friedley-Voshardt Co., Chicago, Ill.
Mullins Co., W. H., Salem, O.

Paint-Silica-Graphite.
Dixon Crucible Co., Jos., Jersey City, N. J.

Plumbago.
Dixon Crucible Co., Jos., Jersey City, N. J.

Plungers.
Berger Bros. Co., Philadelphia, Pa.

Presses.
Stoll Co., D. H., Buffalo, N. Y.

Presses—Punch.
Robinson Mfg. Co., J. M., Cincinnati, O.

Punches.
Bertsch & Co., Cambridge City, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.
Robinson Mfg. Co., J. M., Cincinnati, O.
Stoll Co., D. H., Buffalo, N. Y.
Weiss & Co., H., New York, N. Y.

Radiators.
Rochester Radiator Co., Rochester, N. Y.

Rasps.
Delta File Works, Philadelphia, Pa.
Heller Bros., Co., Newark, N. J.
Nicholson File Co., Providence, R. I.

Razors.
Smith & Hemenway Co., New York, N. Y.

Registers.
Henry Furnace Co., T. E., Cleveland, O.
Schwab, R. J., & Sons Co., Milwaukee, Wis.
Symonds Register Co., St. Louis, Mo.
Waterloo Register Co., Waterloo, Ia.

Roasters.
Wheeling Corrugating Co., Wheeling, W. Va.

Rolls Forming.
Bertsch & Co., Cambridge City, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.

Roofers' Supplies.
Auld & Conger Co., Cleveland, O.
Berger Bros. Co., Philadelphia, Pa.

Roofers' Tools.
Auld & Conger Co., Cleveland, O.

Roof Flanges.
Hessler Co., H. E., Syracuse, N. Y.

Roofing—Iron and Steel.
American Rolling Mill Co., Middletown, O.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Berger Bros. Co., Philadelphia, Pa.
Berger Mfg. Co., Canton, O.
Burton Co., W. J., Detroit, Mich.
Canton Art Metal Co., Canton, O.
Follansbee Bros. Co., Pittsburgh, Pa.
Friedley-Voshardt Co., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
La Belle Iron Works, Steubenville, O.
Merchant & Evans Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
National Sheet Metal Roofing Co., Jersey City, N. J.
Stark Rolling Mill Co., Canton, O.
Tanner & Co., Indianapolis, Ind.
Wheeling Corrugating Co., Wheeling, W. Va.
Youngstown Sheet & Tube Co., Youngstown, O.

Rope.
Puritan Cordage Mills, Louisville, Ky.

Rope—Wire.
American Steel & Wire Co., Chicago, Ill.

Rules.
Lufkin Rule Co., Saginaw, Mich.

Saw Sets and Saws.
Smith & Hemenway Co., New York, N. Y.

Schools—Sheet Metal Pattern Drafting.
National School of Sheet Metal Pattern Drafting, St. Louis, Mo.

Screens—Perforated Metal.
Harrington & King Perforating Co., Chicago, Ill.

Screw Drivers.
North Bros. Mfg. Co., Philadelphia, Pa.

Shears—Sheet Metal.
Bertsch & Co., Cambridge City, Ind.
Fuller, Otis L., Goshen, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.
Robinson Mfg. Co., J. M., Cincinnati, O.
Smith, H. Collier, Detroit, Mich.
Stoll Co., D. H., Buffalo, N. Y.
Weiss, H., & Co., New York, N. Y.

Sheets—Black and Galvanized.
American Rolling Mill Co., Middletown, O.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Berger Mfg. Co., Canton, O.
Follansbee Bros. Co., Pittsburgh, Pa.
Inland Steel Co., Chicago, Ill.
La Belle Iron Works, Steubenville, O.
Milwaukee Corrugating Co., Milwaukee, Wis.
Stark Rolling Mill Co., Canton, O.
Tanner & Co., Indianapolis, Ind.
Wheeling Corrugating Co., Wheeling, W. Va.
Youngstown Sheet & Tube Co., Youngstown, O.

Sheets—Ingot Iron.
American Rolling Mill Co., Middletown, O.

Sheets—Planished.
Ward-Dickey Steel Co., Indiana Harbor, Ind.

Sheets—Toncan Metal.
Stark Rolling Mill Co., Canton, O.

Sheets—Vismera.
Inland Steel Co., Chicago, Ill.

Shovels.
Avery Stamping Co., Cleveland, O.

Sifters—Ash.
Hessler Co., H. T., Syracuse, N. Y.

Skylights.
Canton Art Metal Co., Canton, O.

Skylight Gearing.
Weiss & Co., H., New York, N. Y.

Slate Roofing.
Auld & Conger Co., Cleveland, O.
Sheldon, F. C., Slate Co., Granville, N. Y.

Slating Nails.
Hussey & Co., C. G., Pittsburgh, Pa.
Auld & Conger Co., Cleveland, O.

Soldering Flux.
Ruby Chemical Co., Johnstown, O.

Soldering Irons—Self Heating.
Dobbins Mfg. Co., Minneapolis, Minn.
Lyon, Conklin & Co., Baltimore, Md.

Stampings.
Avery Stamping Co., Cleveland, O.

Statuary.
Friedley-Voshardt Co., Chicago, Ill.
Mullins Co., W. H., Salem, O.

Stoves and Ranges.
A. B. Stove Co., Battle Creek, Mich.
Co-operative Foundry Co., Rochester and Chicago.
Quality Stove & Range Co., Belleville, Ill.
Utility Stove & Range Co., Indianapolis, Ind.

Stove Patterns.
Cleveland Castings Pattern Co., Cleveland, O.
Cope Pattern Works, Geo. W., Detroit, Mich.
Quincy Pattern Works, Quincy, Ill.
Vedder Pattern Works, Troy, N. Y.
Weller Pattern Co., Quincy, Ill.

Stove Pipe and Fittings.
Hemp & Co., St. Louis, Mo.

Stove Polish.
Brauer Supply Co., A. G., St. Louis, Mo.
Dixon Crucible Co., Jos., Jersey City, N. J.
Nickel Plate Stove Polish Co., Chicago, Ill.

Stove Repairs.
Brauer Supply Co., A. G., St. Louis, Mo.

Stove Trimmings.
Fanner Mfg. Co., Cleveland, O.

Tapes.
Lufkin Rule Co., Saginaw, Mich.

Technologist.
Hooper, C. N., Dubuque, Ia.

Telephone Wire.
American Steel & Wire Co., Chicago, Ill.

Thermometers—Oven.
Cooper Oven Thermometer Co., Pequabuck, Conn.

Tin—Perforated.
Harrington & King Perforating Co., Chicago, Ill.

Tinners' Tools.
Berger Bros. Co., Philadelphia, Pa.
Bertsch & Co., Cambridge City, Ind.
Dobbins Mfg. Co., Minneapolis, Minn.
Dries & Krump Mfg. Co., Chicago, Ill.
Fuller, Otis L., Goshen, Ind.
Lufkin Rule Co., Saginaw, Mich.
Niagara Machine & Tool Works, Buffalo, N. Y.
Robinson Mfg. Co., J. M., Cincinnati, O.
Smith, H. Collier, Detroit, Mich.
Stoll Co., D. H., Buffalo, N. Y.
Weiss & Co., H., New York, N. Y.

Tinplate.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Berger Mfg. Co., Canton, O.
Follansbee Bros. Co., Pittsburgh, Pa.
Merchant & Evans Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
Tanner & Co., Indianapolis, Ind.
Wheeling Corrugating Co., Wheeling, W. Va.

Torches.
Ashton Mfg Co., Newark, N. J.
Bernz, Otto, Newark, N. J.
Burgess Soldering Machine Co., Columbus, O.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Globe Gas Light Co., Boston, Mass.

Trowels.
Avery Stamping Co., Cleveland, O.

Tubing—Seamless.
Dieckmann Co., F., Cincinnati, O.

Ventilators.
Berger Bros. Co., Philadelphia, Pa.
Berger Mfg. Co., Canton, O.
Friedley-Voshardt Co., Chicago, Ill.
Globe Ventilator Co., Troy, N. Y.
Lee, Thos., Cincinnati, O.
Merchant & Evans Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
Pullman Auto. Ventilator Co., York, Pa.
Standard Ventilator Co., Lewisburg, Pa.
Washburne & Co., E. G., New York, N. Y.

Washing Machines.
XXth Century Mfg. Co., Mansfield, O.

Wagons—Hardware Delivery.
DeKalb Wagon Company, DeKalb, Ill.

Water Heaters.
Stolz Co., F. D., Chicago, Ill.

Wire.
American Steel & Wire Co., Chicago, Ill.
Pittsburgh Steel Co., Pittsburgh, Pa.

Wants and Sales

For paid Yearly subscribers AMERICAN ARTISAN AND HARDWARE RECORD will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, business for sale, partners wanted, to exchange, etc. Not exceeding fifty words, the price to non-subscribers is one dollar, payable in advance. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN AMERICAN ARTISAN."

PATENTS U. S. and Foreign Patents secured. Trade-Marks Registered. Patent Validity and Infringement Opinions.
Consulting Expert HERBERT E. PECK Patent Attorney
Established 1895 WASHINGTON, D. C. Barrister Bldg.

BUSINESS CHANCES.

For Sale—A hardware, plumbing and heating business in northern Illinois. Stock will invoice about $6,000 or better. This would be a fine opportunity for anyone who understands the heating and plumbing business. Address T-17, in care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Illinois. 21-3t

For Sale or Exchange—Two fine pieces of land, close to a good live town, there are 38 acres in one and 35 acres in the other, good clay soil. Will deal either one or both. These farms corner on each other. For particulars inquire of Reedsburg Hardware Co., Reedsburg, Wisconsin. 21-3t

For Sale—First class hardware and jobbing business, averaging about $8,000 yearly, located on good business street of Chicago. For particulars address T-15, in care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Illinois. ufn

For Sale—$10,000.00 stock hardware and implements in eastern Oklahoma, county seat town, 2,000 population with bright future. Fine farming country—30,000 acres segregated land to be sold next six months. Good business established. Also own buildings which will sell or lease. Fine opportunity for cash purchaser. Address T-16, in care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Illinois. 21-3t

For Sale—Tinshop and furnace business in a good live town; plenty work year around. Snap for a good tinner. For reasons and particulars, address I. R. Keller, Upper Sandusky, Ohio. 19-3t

To Exchange—Good Iowa farm for a $5,000 to $10,000 hardware stock. The farm consists of 167 acres, tilled, 9-room house, barn, granary and cribs. All in good repair. Orchard and small fruit. I do not want any buildings. 1½ miles from good town of 2,500. H. C. Vass, Eldon, Iowa. 20-3t

For Sale—An up-to-date stock of hardware and tin shop in a Southern Wisconsin city of about 8,000 population; reason for selling, other business demands my attention. Good farming and manufacturing trade. An exceptional opportunity for the right party. Address "T. 1," care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Illinois. ufn

For Sale—About $4,500 stock of hardware, implements and furniture. Nice, clean stock. Only store in Eastern Nebraska town. Good farming country. No trade considered. This is worth investigating. Can give good reasons for wanting to sell. Address "T-10," care of AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Ill. 19-3t

For Sale—Half interest in flourishing hardware, tin, auto, heating and machinery business incorporated at New London, Wis. Live city of 5,000 people. Store in best location, heart of Wisconsin's finest farming section. Five big factories, two railroads, home of the Globe Condensing Co. Will stand closest inspection. See it—but hurry. About $5,500 cash. Address S. Reckert, Fond du Lac, Wis. 19-3t

BUSINESS CHANCES.

If you are in the market for any kind special light metal work, let me figure with you, as I can save you money. Address E. Taege, 544 West Washington Blvd., Chicago, Illinois. 21-1t.

For Sale—An interest in a wholesale hardware to some live wire who is experienced in the hardware business, at a good salary, and money invested; will draw a good dividend. Address "T. 5," care of AMERICAN ARTISAN, 537 South Dearborn Street, Chicago, Illinois. 18-4t

For Sale—An up-to-date tin and sheet metal shop in a town of 7,500 population, doing a good sheet metal and furnace business. Have about $400 worth of work contracted. Sickness cause of selling. A good chance for the right man. Address "C. R. M.," care of AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Ill. u.f.n.

For Sale—Hardware store in eastern Nebraska, doing over $45,000 yearly business. Will bear full investigation. No trades considered. Address Box 444, AMERICAN ARTISAN, 537 S. Dearborn St., Chicago, Ill. u.f.n.

Wanted—To buy a clean, up-to-date stock of hardware, tinware, stoves and tinshop and plumbing shop in connection. Stock not to invoice over $5,000. South Dakota or Montana preferred. Address "T-8," care of AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Ill. 19-3t

For Sale or Trade—140 acres heavy timber land in Fentress County, Tennessee, for small stock of hardware or tinshop in town of 3,000 to 12,000. Ohio, Illinois or Indiana preferred. Nelson Fuhrman, 1235 Swinney Ave., Ft. Wayne, Ind. 19-3t

Excellent opportunity for a reliable man experienced in stove, range and furnace business and acquainted with dealers in northwestern territory to invest $10,000 or more. Also to become an active member of firm. Interview solicited. Address "S-84," care of AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Ill. 19-4t

TINNER'S TOOLS.

For Sale—A complete set of plumbing tools. Fine opening for a plumber, turning work away every day. Will sell cheap. Address E. W. Lowell, Janesville, Wisconsin. 21-3t

Wanted—Second-hand 30" Bar Folders, must be in good condition. Sackett & Co., Kinsman, Ohio. 20-3t

For Sale—At a bargain; one No. 24 Eagle Automatic Acytelene Generator Gas Machine for fifteen lights with fixtures complete. Reason for selling, village has installed electric light system. For further particulars write Husting and Wagner, Theresa, Wisconsin. 17-6t

HELP WANTED.

Wanted—Experienced stove salesman for Wisconsin, Minnesota and Iowa. Good Line. References required. Address "T-11," care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Ill. 20-3t

Wanted—A live, hustling young married man to take working interest in hardware and implement business (tinner preferred) in a small R. R. town in Northern Illinois. Good farming and dairy country. A good chance for a hustler. Address "T-12," care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Ill. 20-3t

Wanted — Clerk in hardware store. Young man to take full charge. Hardware & Supply Company, 718 E. 63d St., Chicago, Ill. 19-3t

Wanted — In Central Illinois, an all-around man that understands the hardware business; willing to work outside as well as in. One that can do some tinwork and not afraid to work. Must have good references. No drinker. Address "T-6," care of AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Ill. 19-3t

Wanted—In Central Illinois, a good tinner and furnace man. One not afraid of work. No boozers. Must have good references. Address "T-7," care of AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Ill. 19-3t

Wanted—Five first-class all-around tinners. Steady work. Racine Sheet Metal Works, Racine, Wis. 19-3t

HELP WANTED.

Wanted — Experienced sheet metal worker. Must understand cornice work, guttering, metal windows, flashing and all kinds of galvanized iron work. Must be able to make patterns and work from blue prints. Must be sober, reliable and energetic; also able to lead in work and take full charge of shop where from 12 to 20 men are employed. Prefer a man who has a family. Good wages and a steady job to the right man. In answering state age and experience. Address T-14, in care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Illinois. 21-1t

Wanted—Tinner. One who can do some plumbing preferred. Will guarantee a steady position to the right man. No boozer need answer. Address Wm. O. Lee & Co., Huntley, Ill. 20-3t

Help Wanted—Wanted young man, three or four years' experience in home plumbing and house electric wiring. Give age and experience. Address Lock Box 111, Durango, Colorado. 18-4t

Wanted—At once, a tinner for country shop, steady work year around. State wages wanted in first letter. No booze-fighter wanted. Ralph W. Orr, Clymer, New York. 20-3t

SITUATIONS WANTED.

Situation Wanted—As foreman of tinshop. Would like inside work on light tin, galvanized or creamery tinware. Address T-18, in care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Illinois. 21-3t

Wanted—One good hardware dealer in each town and city to sell Campbell Patent Mitre Box. Address Campbell Mitre Box, 43 Mill street, Boston, Massachusetts. 21-3t

Wanted—A position with some hardware firm. Am a tinner by trade and can do a fair job of plumbing. Have a good set of tools and would go in partners if everything was agreeable. Can furnish A-1 references. Address: Perl P. Parker, Box 498, Horton, Kansas. 20-3t

Situation Wanted—By a first-class all-round tinner and furnaceman, 20 odd years' experience, good inside and out. Sober and want steady job. Wages as good as $18.00 per week. F. W. Roberts, care of AMERICAN ARTISAN, 537 South Dearborn street, Chicago, Ill. 20-3t

Situation Wanted—By tinner or plumber, or both. Can handle either thoroughly. State wages and hours of labor in first letter. Colorado, New Mexico or Texas preferred. Address "T-9," care of AMERICAN ARTISAN, 527 South Dearborn St., Chicago, Ill. 19-3t

SPECIAL NOTICES.

TINNERS WANTED

First-class, 1119 Superior Avenue N. E., Cleveland, Ohio. 21-1t

A High Grade Sales Manager

now associated with one of the largest stove manufacturers desires to make new connections Jan. 1st, 1913. Able to handle a large force of salesmen and can promote an extensive and successful business. An expert in handling credits and office detail. Over fifteen years' experience in stove and range business. Address B-2 AMERICAN ARTISAN, 537 South Dearborn Street, Chicago, Illinois. 20-3t

SPECIAL NOTICES.

WANTED

A first class, experienced Furnace Salesman for Wisconsin, Northern Iowa, Minnesota, and Dakota territory. The Wise Furnace Co., Akron, Ohio. 21-3t

WANTED

Foreman for Stove Moulding Department of a Factory, making a high grade line of Stoves and Ranges in the Central West. Must be competent to handle men and turn out good work. Excellent opportunity —reference required. State experience and age. Address T-13, care of AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Illinois. 21-3t

WANTED

Stock Room Man, one familiar with all kinds of hardware and mill supplies. Apply at once Employment Department, Cleveland Foundry Co., 7609 Platt Ave., Cleveland, Ohio. 21-1t

TINNER WANTED

and Furnace men at once. W. S. Heabler, Bonnie View and Detroit Sts., Cleveland, Ohio. 21-1t

TINNERS WANTED

W. M. Fiesler, 7106 Superior Avenue, Cleveland, Ohio. 21-1t

TINNERS WANTED

Two, first-class, at once, 9918 Lorain Avenue Cleveland, Ohio. 21-1t

FOR SALE
Warm Air Register Business

Our other interests demand our foundry space. We will close out patterns, flasks, follow boards, everything complete, including Stock of Registers on hand. Address "BUSINESS," care of AMERICAN ARTISAN, 537 South Dearborn Street, Chicago, Illinois. u. f. n.

SPECIAL NOTICES.

WANTED

An experienced Stove Salesman for Iowa territory to represent one of the oldest trade-mark lines. We require a man acquainted with this territory. Must furnish satisfactory references which will be held confidential. Splendid opportunity. Answer W. T. 1913 care of AMERICAN ARTISAN, 537 South Dearborn Street, Chicago, Ill. 20-1t.

FOR SALE

STOVE MANUFACTURING PLANT

Including buildings, machinery, patterns and equipment for the manufacture of a complete line of ranges, cook stoves and heaters. Will sell as a whole or in part. Must be sold at once. Address B-4 care of AMERICAN ARTISAN, 537 South Dearborn Street, Chicago, Ill. 20-3t.

For Sale—Registers

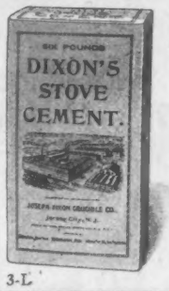
Cheap. Stock of Registers on hand—also patterns, flask follow boards. We are going out of business. Address "DISCOUNT," care of AMERICAN ARTISAN, 537 South Dearborn Street, Chicago, Illinois, u. f. n.

STOVE MANUFACTURER

of many years experience, having disposed of present interest, is ready to make a change. Golden opportunity for some concern to secure competent manager. Address "High Grade" care of AMERICAN ARTISAN, 537 South Dearborn Street, Chicago, Illinois. ufn.

WANTED

15 union tinners at once. Do not wait to write, come ahead. Plenty of work. Wm. Foster Mfg. Co., Springfield, Ill. u. f. n

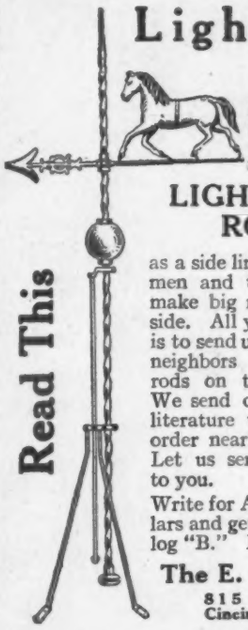


Stove men recommend it as the most satisfactory material for repairing cracked or worn linings in stoves, ranges and furnaces. It assures a lasting job.

Write for Folder No. 18-L.

Joseph Dixon Crucible Company
Jersey City, N. J.

3-L



Read This

Lightning Rods

Have you ever given serious thought to selling

LIGHTNING RODS

as a side line? Hardware men and tinsmiths can make big money on the side. All you need to do is to send us a list of your neighbors who have no rods on their property. We send out convincing literature that lands an order nearly every time. Let us send such orders to you.

Write for Agency particulars and get our new catalog "B." Do it today.

The E. A. Foy Co.
815 Broadway
Cincinnati, Ohio

C. N. HOOPER
DUBUQUE, IOWA
Vitreous Enameling
TECHNOLOGIST
Designs, builds and starts new plants, improves quality and reduces cost, in those already established.

If you don't advertise your business, the sheriff may.

SHEET METAL WORKERS

LEARN PATTERN DRAFTING
"It Pays You"

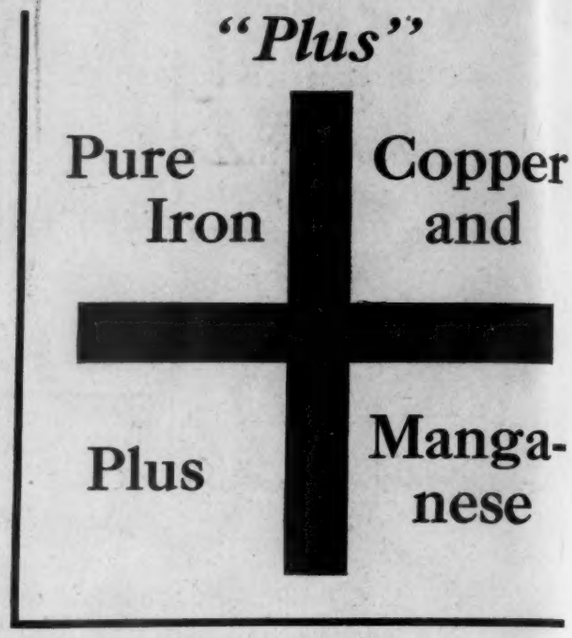
There is a greater demand for **GRADUATES** of this school than we are able to fill. The reason lies in the simpleness, the practicability and the thoroughness of our **HOME STUDY** courses. A trial will convince you.

WRITE TODAY—"NOW"—FOR OUR FREE BOOKLET AND OTHER INFORMATION

The National School
O. W. Kothe, Prop. St. Louis, Mo.

VISMERA SHEETS

Are Pure IRON—*Plus.*



IN the "plus" lies much of the secret of their remarkable ***lasting*** qualities; for the pure iron is alloyed with COPPER and MANGANESE.

The copper helps them to resist RUST by covering their surface with a film of copper which comes to the surface in the rolling process, and fills the "pores" of the iron, like a waterproof paint fills the pores of wood.

The MANGANESE puts a stop to CORROSION by throwing off from the molten iron a whole lot of impurities such as sulphur and silicon. Corrosion, you know, attacks the ***impurities*** in a sheet just as a disease germ attacks the weakest part of a human.

VISMERA Iron Sheets are made from NEW Materials

"Vismera Iron" is made wholly from our own strong Northern Basic Pig Iron plus our own Extra Soft Basic Open Hearth Crop Ends as they drop red hot from our shears in our billet mill.

The use of ***new*** materials makes Vismera a "live" metal: tough, strong, workable; while sheets made largely from commercial scrap are apt to be brittle because the raw material is "dead."

These are only a few of many reasons for the splendid records that are being made for VISMERA in the metal working crafts.

Try a little of it. Send for samples and prices.

INLAND STEEL COMPANY

First National Bank Building, Chicago

Works, Indiana Harbor, Indiana

Branch Offices: ST. PAUL Pioneer Building; ST. LOUIS Nat'l Bank of Commerce Bldg.; DENVER 1618 Stout Street; DALLAS Praetorian Building; MADISON, WIS 929 Spaight Street

LA BELLE

Yesterday, Today, Tomorrow —Every day is Quality Day in the Manufacture of

La Belle Open Hearth Steel Sheets

Regardless of the right or wrong of it, we've set a leading pace and found it paid.

It pays us to make the very best sheets possible, because it pays the buyer to get the sheets that work with least waste and least labor, and give the most permanent results.

We control the quality of La Belle sheets "from mine to market."

La Belle Iron Works

General Offices
Steubenville, Ohio

Works Wheeling, W. Va.
Works Steubenville, Ohio

High Grade Sheets and Light Plates

IF you, as a manufacturer of a sheet metal product, or of some product in which sheet metal was an important factor, have need for a better grade of material, or for some special quality that you have heretofore been unable to secure, write us fully as to your requirements.

IRON and Steel are susceptible to many variations in the production of the basic ingot, and in the treatment accorded the resultant product after the ingot has been produced.

OUR large and fully equipped Research Laboratories, second to none in the world, are at your command.

EVERY product that we make **must be the best of its kind** at the **time it is produced and sold.**

SPECIAL ANALYSIS
Black and Galvanized

SHEETS
BILLETS AND PLATES

"ARMCO OLD STYLE TERNE PLATE"

Middletown Auto Body Sheets

AMERICAN INGOT IRON

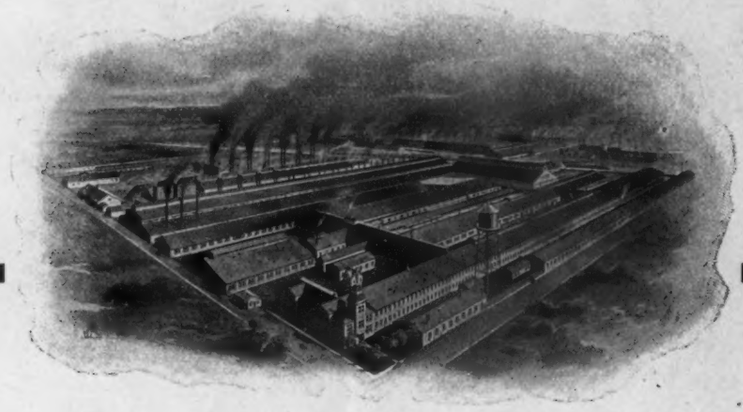
—THE—

American Rolling Mill Co.

Middletown, Ohio

Licensed Manufacturers under patents granted to the International Metal Products Company.

Largest Sheet Metal Works in the World



The mushroom like growth of our factories, during their 25 years of existence, from a small one room, one story building to the present mammoth group of plants is attributed to several very important reasons.

First, among these is quality of products—raw material, design and construction.

Second, is the uniformity of our line—good always.

Third, is our ability to make prompt shipment—not sometimes, but all times.

Fourth, our facilities for distribution—a branch in every part of the country.

Fifth, the extensiveness of our line—everything in sheet metal, including Concrete Reinforcing and Furring Plates, Metal Lath, Metal Ceilings, Roofing, Eaves Trough and Conductor Pipe, and sheet metal building products of all kinds.

Are you getting your share of the business required to keep these factories running? If not, drop us a line and let's find the reason why.

The Berger Mfg. Co., Canton, Ohio

For the Best Service Address Nearest Branch

New York Boston Philadelphia Minneapolis San Francisco St. Louis

WHEELING CORRUGATING COMPANY

Heavy Coated Terne Roofing Plates

Whitaker,	Re-d'pped,	47	lbs.	Coating.
Margaret	"	40	"	"
Sarah	"	40	"	"
Jessie,	"	30	"	"
Louise	"	30	"	"
Nelson	"	25	"	"
Alice	"	25	"	"
Helen	"	20	"	"
Mary	"	20	"	"
Nina		15	"	"

These Brands are Standard. They are sold from Maine to Texas, from Key West to Spokane, and are known wherever Roofing Plates are used.

OPEN HEARTH BASE—which means a soft, ductile sheet.

RESQUARED—on **four** sides.

GUARANTEED COATING—the amount of Coating each Brand carries is stamped plainly on every Plate.

Six weights of coating (Ten Brands) from 47 lbs. to 15 lbs. per case of 112, 20 x 28-in. sheets.

These specifications assure honestly made, workable plates—a sufficient range of coating, finish and price to suit any class of work and to fit any pocketbook.

Stocks at Wheeling and at Six Warehouses — no delay in filling orders.

WHEELING CORRUGATING COMPANY, WHEELING, W. VA.

BRANCH OFFICES AND STORES:

NEW YORK CHICAGO PHILADELPHIA
ST. LOUIS KANSAS CITY CHATTANOOGA

"A product without a peer."

Quality

has ever been the watch-word in the manufacture of

APOLLO BEST BLOOM
Galvanized Sheets

The recognized standard in this country for 27 years—these sheets are now used in all the markets of the world.

SEND FOR AN APOLLO WEIGHT CARD.

American Sheet and Tin Plate Company

General Offices: Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES:

Chicago Cincinnati Denver Detroit New Orleans New York Philadelphia Pittsburgh St. Louis

Export Representatives: UNITED STATES STEEL PRODUCTS COMPANY, New York City

Pacific Coast Representatives: UNITED STATES STEEL PRODUCTS COMPANY, Los Angeles, Portland, San Francisco, Seattle

It has the best American record

None other makes so good a roof

or lasts as long

MERCHANT'S IC OLD METHOD

That's the reason

Merchant & Evans Co

Philadelphia and Eight Branches

HIGHEST EFFICIENCY OBTAINED

By Use of Model "B"

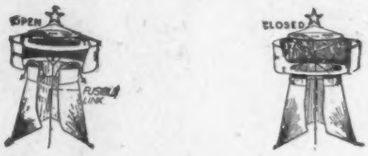
"STAR"

Fire Retarding

VENTILATORS

(Patented and Trade Marked)

OPEN CLOSED



They combine skylight, quick exhaust with an automatic damper controlled by fusible link. In event of fire, link parts and damper closed by gravity, stopping all draft but not affecting the light.

M&E

MERCHANT & EVANS CO.

(The Premier Metal House in America.)

Sole Manufacturers. Also High-Grade Roofing and Bright Tin Plate.

PHILADELPHIA

NEW YORK BROOKLYN CHICAGO
BALTIMORE WHEELING CLEVELAND
KANSAS CITY DENVER

TONCAN METAL

SHEETS

Rust-Resisting *Anti-Corrosive*

Specified by Leading Architects and by
The United States Government

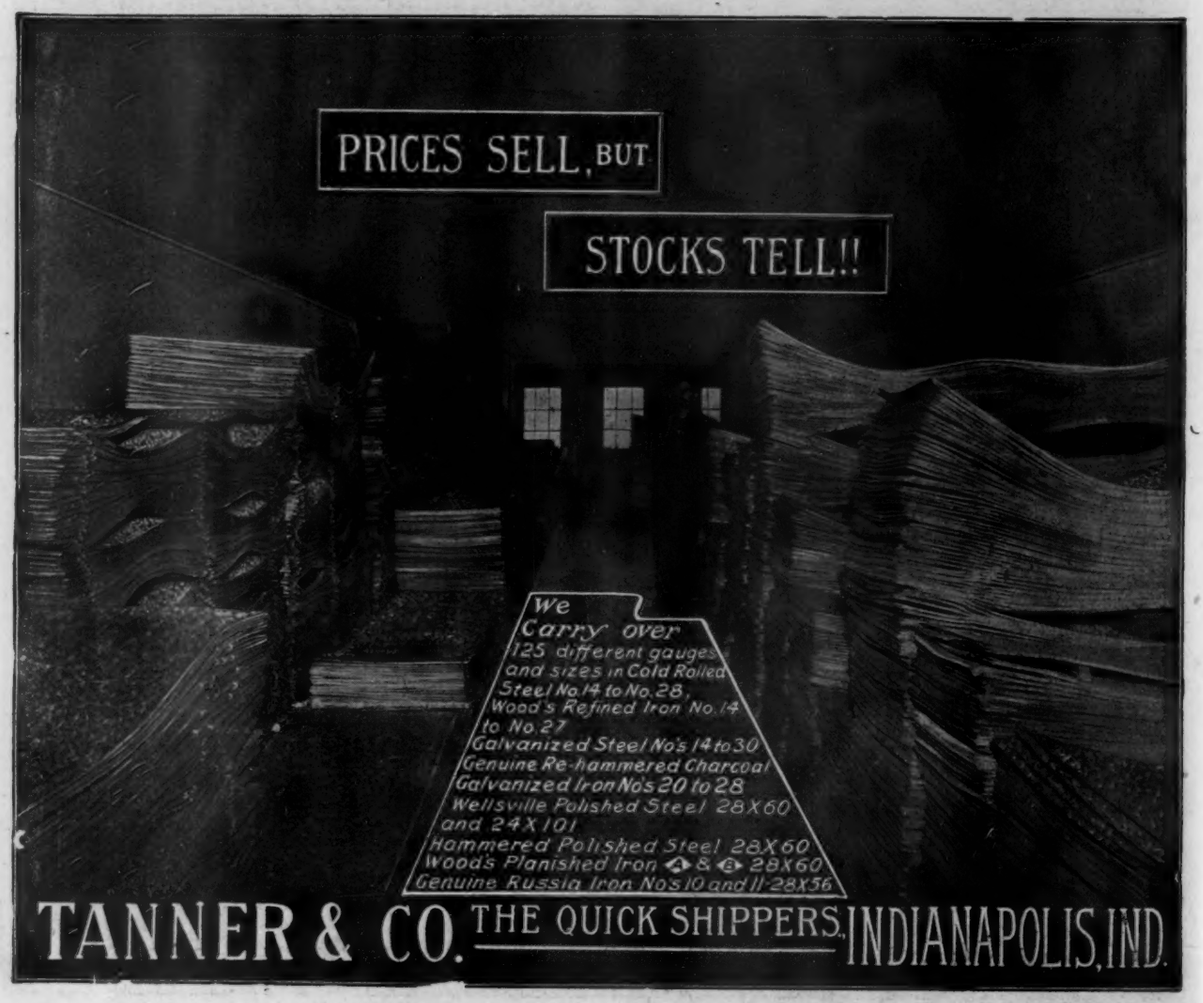
They make good where other sheets fail.

Ask your jobber

The Stark Rolling Mill Co.

Canton, Ohio

Also manufacturers of Black and Galvanized Sheets and Formed Products



"XL" Skylights, Cornices, Ventilators and Special Sheet Metal Work

Stock designs, or made to order from plans and specifications. . . . .

WE SOLICIT YOUR INQUIRIES

THE

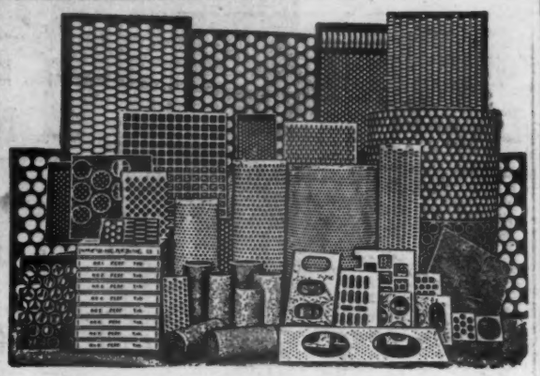
CANTON ART METAL CO.

"Quality Products"

CANTON, OHIO

Eastern Office and Wareroom
THE CANTON STEEL CEILING CO.
25th St. and 11th Ave., N. Y. C.

MINNEAPOLIS BRANCH: 206 South 3rd St.



PERFORATED METALS
OF EVERY DESCRIPTION

MANUFACTURERS OF

Perforated Steel Plates and Sheets (Black and Galvanized)
Perforated Sheet Copper, Brass, Bronze, Aluminum, Lead, Zinc, Monel Metal and Other Alloys.

Screen Plates and Sheets for Ores, Coal, Stone, Cement, and all kinds of
Grain Cleaning and Sorting Apparatus
For Centrifugal Linings, Filter Press Plates, Drying Floors, False Bottom Strainers, Extractor Baskets, Revolving Screens, Shaking Screens, Chute Screens.

Grilles and Ornamental Screens for Radiators, Ventilators, Air Vents, Heat Vents, in Private and Public Buildings, made to suit local requirements.

Perforated Tin and Brass of Standard Sizes carried in stock.

Anything in Perforated Metal.

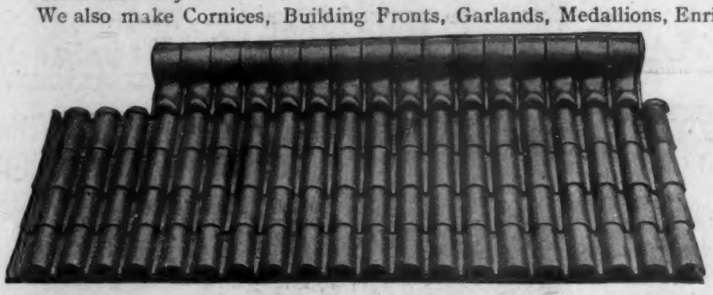
THE HARRINGTON & KING PERFORATING CO.
610 NORTH UNION ST.—CHICAGO, ILL., U. S. A.
NEW YORK OFFICE, 114 LIBERTY ST.

MULLINS METAL TILE ROOFING

Has won widespread and lasting favor because of its many superior qualities. Beauty, Simplicity, Durability—these are its salient characteristics. Absolutely storm-proof and water-tight.

When put on according to directions, Mullins Metal Tile Roofing is guaranteed to keep in perfect condition for years.

We also make Cornices, Building Fronts, Garlands, Medallions, Enriched Moldings, Capitals, Finials and other architectural ornaments. Many thousands of designs to select from.



Our prices are attractive, our services prompt. Quick estimates on special jobs.

Catalogue along any desired line will be sent you by return mail.

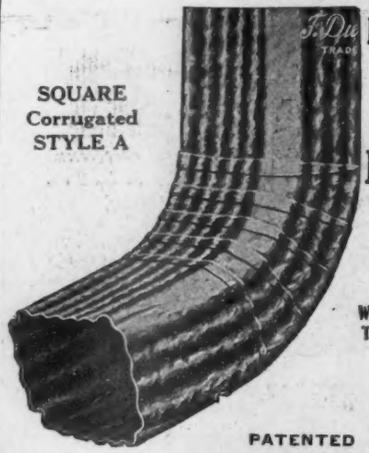
The W. H. Mullins Co.
209 Franklin St. SALEM, OHIO

We make the purest practical quality Open Hearth then further improve it by hammering. (Hammer strikes with force of 800 tons.)

SCOTT'S EXTRA COATED HAMMERED OPEN HEARTH ROOFING TIN

is made the most desirable working quality. It has a rich tin coating, well applied.

Follansbee Brothers Co.
Manufacturers PITTSBURGH, PA.



SQUARE Corrugated STYLE A

Reduce Your Labor Charge by Using the Best One Piece

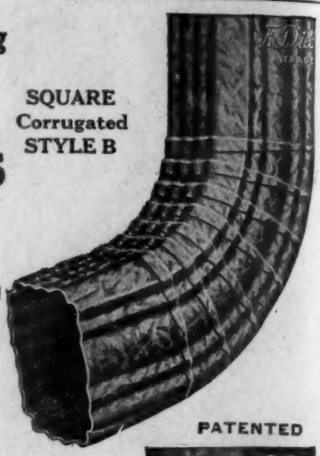
CONDUCTOR ELBOWS and SHOES

ON EARTH

TRADE

WITH THE F. Dieckmann Stamped in Them

Full MARK Length



SQUARE Corrugated STYLE B

Are Made in All Angles and Designs of Nos. 29, 28, 27, 26 and 24 Gauge Material

Each Elbow Made of Special Materials Has Name of Material Stamped in it.

PATENTED

ROUND CORRUGATED

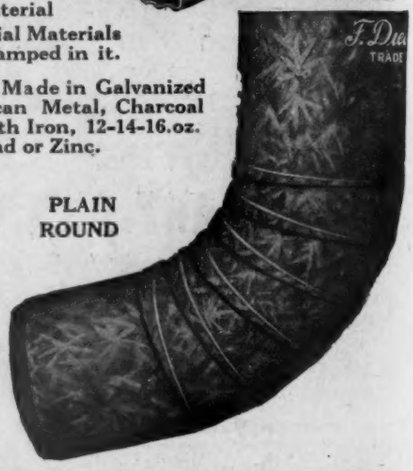
Fit all Makes of Conductor Pipe. Made in Galvanized Steel, American Ingot Iron, Toncan Metal, Charcoal Iron, Newport Genuine Open Hearth Iron, 12-14-16.oz. Copper and Lohmannized with Lead or Zinc.

Look for Trade Mark on Each Elbow
All Shoes Have Reinforced Bands

We also make a line of Tin and Galvanized lock seam Speaking Tubes and fittings.

Prompt Shipment Guaranteed.

PATENTED



PLAIN ROUND

The

Ferdinand Dieckmann Co.

Station B. CINCINNATI, O.

PLECKER'S CORRUGATED EXPANDING CONDUCTORS

Will not burst when full of Ice.

HAVE NO CROSS SEAMS. MADE OF GALVANIZED IRON IN 10 FT. LENGTHS.

THE CLARK-SMITH HARDWARE COMPANY, Peoria, Ill.

MANUFACTURERS OF

Steel Ceilings and Side Walls, Cornices, Skylights and Fireproof Windows, Roofing

Eastlake Metal Shingles, Prepared Asphalt Roofings.

SEND FOR CATALOGUE.

The W. J. BURTON CO., Detroit, Michigan

COPPER CONDUCTORS
COPPER EAVESTROUGH
COPPER ELBOWS AND SHOES

COPPER

Rivets—Sheets—Soldering Coppers—Nails
Plates—Washers—Tacks—Rolls
Gaskets

WRITE FOR PRICES

C. G. HUSSEY & CO.
PITTSBURGH, PA.

WHAT RUBY FLUID REALLY IS

A perfect soldering flux, anti-rusting, non-poisonous, non-corrosive and non-explosive. To prove its anti-rusting and non corrosive qualities we ship it, and even store it, in tin cans, with a wood jacket for protection. Ask the following Jobbers:

BREGER BROS. CO., Philadelphia, Pa.
J. M. & L. A. OSBORN CO., Cleveland, Ohio.
VAN CAMP HDWE. & IRON CO., Indianapolis, Ind.
WYETH HDWE. & MFG. CO., St. Joseph, Mo.

A SAMPLE FREE.

The Ruby Chemical Co., 157 W. State St.
Formerly of Johnstown, Ohio COLUMBUS, OHIO

The "CENTENNIAL"
RAIN-WATER-CUT-OFF

The strongest, most durable and cheapest CUT-OFF on the market.

The only single cut-off made to fit **Corrugated** and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

Manufactured only by
THE SULLIVAN-GEIGER CO.
501-509 Madison Ave., Indianapolis, Ind.

SHELDON'S SLATES

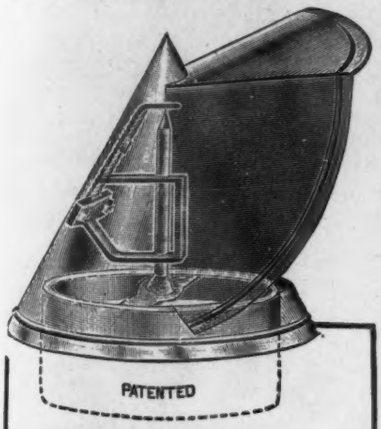
Guarantee Permanent { ROOFS BUSINESS PROFITS

FOR flat roofs, pitched roofs of every description, for laying over shingles and for carrying out architectural color schemes, **Sheldon's Slates** have no substitute or equal.

THEY are furnished in a variety of colors and grades to meet every requirement.

GET our Booklet, and let us show you how you can make money handling this remarkable rock product in your section.

F. C. SHELDON SLATE CO., Granville, New York



THE NEW ROTABLE

Standard Ventilator

is simple and strong. Never needs attention. Prevents down draft and actually cures smoky chimneys.

Sold by leading jobbers everywhere, or write us direct.

Standard Ventilator Co.
Lewisburg, Pa.

"LEE" VENTILATORS

have been for the past thirty years the standard of perfect ventilation. Under the most trying conditions they have proven that they are built on the only correct principles. "Lee" Ventilators are now in use upon every style of building.

Our booklet gives a detailed description showing the great variety of styles and sizes they are made in. When writing for the book ask for trade discount.

THOMAS LEE
132 Second Avenue Cincinnati, Ohio

SYRACUSE WHIRLTOP VENTILATOR

The best chimney ventilator on the market. Positively cures a smoky chimney. Made entirely of galvanized steel. Can be adjusted to pipe without riveting. Can furnish Whirltop frame only or complete with mounting.

Send for a complete catalog and trade prices. You can't beat our price. Write today

H. E. HESSLER CO., Syracuse, N. Y.

The slightest breath of air will cause this *head* to revolve which causes this *propeller* to turn in the ventilating shaft and the result is—

A Steady, Sure Ventilation or Increased Draught.

The air-drawing action is positive and at each revolution a volume of air is drawn out. **The Washburne Patent Self-Lubricating Rotary Screw Ventilator** is distinctive in that it combines assurance of operation with no attention. Self-lubricating bearings keep the friction at a practical minimum. *Let us quote prices* and give you further information.

E. G. WASHBURNE & CO.
317 Fulton Street New York

The "GLOBE" is built on honor and sold on merit.

The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes.

ABSOLUTELY STORM PROOF

For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character.

SMOKY CHIMNEYS CURED

"GLOBE VENTILATED RIDGING"

SEND FOR PAMPHLET

Manufactured by
GLOBE VENTILATOR CO., Troy, N. Y.

PULLMAN COWLS

don't need to revolve; they are *always* in position for work.

WRITE FOR BOOK

Pullman Automatic Ventilator Manufacturing Co., York, Pa.

FRIEDLEY-VOSHARDT CO.

MANUFACTURERS OF

Architectural Sheet Metal Ornaments, Statuary, etc.

All Kinds of Stamped and Spun Work

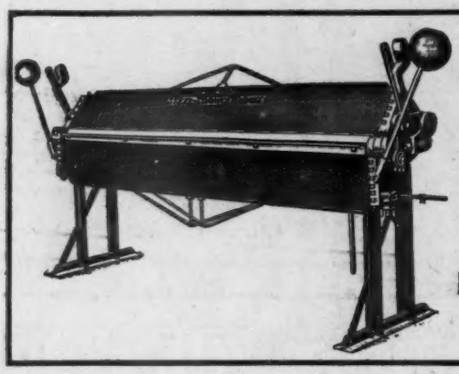
Art Metal Ceilings and Side Walls

Send for Architectural Sheet Metal Catalog

No. 31

General Offices, 733-737 S. Halsted St.
Factory, 761-771 Mather Street

CHICAGO, ILL.



Don't get the idea that the

Chicago Steel Brakes

are high in price just because they are the highest class brakes made. Oh, no. They are sold at a very reasonable cost. You will be surprised how low.

8-foot for 16-gauge and lighter.

Made in all sizes.

DREIS & KRUMP MFG. CO.

Halsted and 29th Streets

CHICAGO

No. 40

Berger's Wrought Star Ears

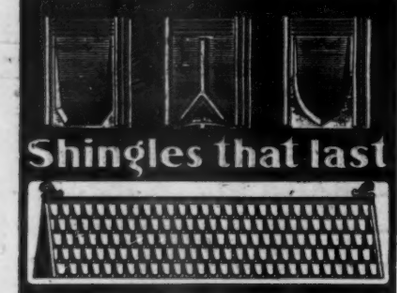
This is as fine an ear as can be made. Every piece is perfect, with fine finish, nicely tinned, same size and thickness as our malleable Star ears. No. 30 corresponds to malleable No. 3, etc. Furnished in gross boxes or in bulk to suit the purchaser. Samples mailed free upon request.

Berger Bros. Co., Mfrs.

Warerooms and Factory:

100 to 114 Bread St., PHILADELPHIA

WALTERS'



Shingles that last

Made from Galvanized Tin and Painted Tin

Storm, Rust and Fire Proof

Do you want to increase your business? This is your opportunity. Write for catalogue, samples and prices.

National Sheet Metal Roofing Co.

JERSEY CITY, N. J.

ROOFING SLATE

Write For Prices

THE AULD & CONGER CO.

Manufacturers and Dealers

999 Prospect Street, Cleveland

YOU

Need a Tinner, Furnace Man or Hardware Clerk? A want ad in

AMERICAN ARTISAN

That's all that's necessary to solve the problem.

To Reach

THE HARDWARE TRADE

The Hardware Manufacturer and Jobber will find no medium equal to

IT IS

generally recognized as a thoroughly up-to-date NEWSY PAPER that

AMERICAN ARTISAN AND HARDWARE RECORD

Has No Equal in Its Field.

PUBLISHED EVERY WEEK BY

Daniel Stern

537 South Dearborn Street, CHICAGO

"QUICKWORK" ROTARY SHEARS

WILL CUT IRREGULAR CURVES

as small as 1½" radii and holes as small as 3" in diameter, **without cutting in from side of sheet.** No other shear or even hand snips will do this.

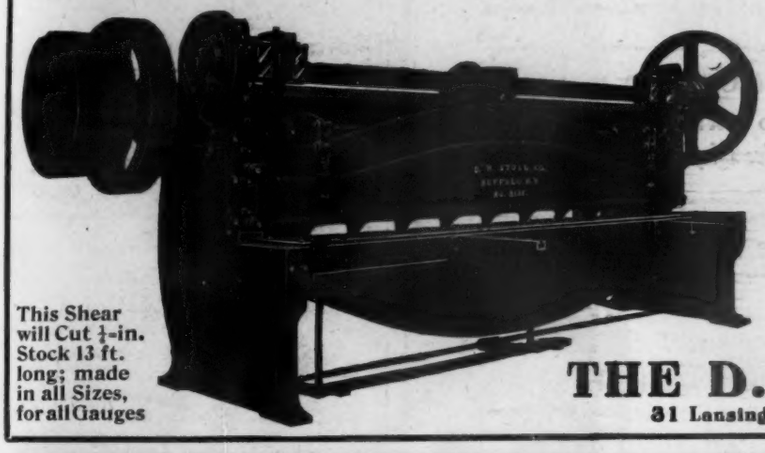
Furnace Installers all over the country find the **"Quickwork"** the only successful rotary shear for cutting domes, openings in casings, elbows, and irregular fittings of all kinds. *A wonderful money and time-saver.*

A Feature of the **"Quickwork"** is that it leaves the edges of the metal as flat as though blanked out with dies.

You can not fail to appreciate the great improvements to be found in this shear. Sample cuttings will be sent you, by prepaid express, for the asking. Write for them.

H. COLLIER SMITH

126 Harper Ave. Maker of SHEET METAL WORKERS MACHINERY Detroit, Mich.



This Shear will Cut ¼-in. Stock 13 ft. long; made in all Sizes, for all Gauges

Power Squaring or Gap Shears

OF ALL LENGTHS AND FOR ALL GAUGES

SUBSTANTIALLY BUILT
EXCELLENT WORKMANSHIP
Attractive Prices and Quick Deliveries

THE D. H. STOLL CO.

31 Lansing Street, BUFFALO, NEW YORK

SKYLIGHT GEARING and CHAIN LIFTS

Tinsmiths' and Plumbers' Tools. Cornice Makers Tools. Coppersmiths Tools. Pipe Threading Machines

Second-Hand Goods Bought, Sold and Exchanged.

Slitting Machine for No. 12 Iron.

H. WEISS & CO.

20 Cliff Street
NEW YORK

Snips For Tinners

Made the Drop Forged **"RED DEVIL"** Way of Steel

For Straight and Circular Cutting
ALL STANDARD SIZES

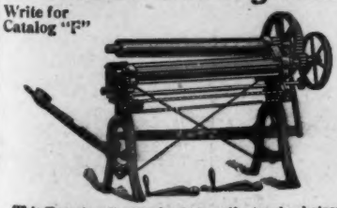
The same High Standard of Quality that characterizes all other "Red Devil" Tools is maintained in "Red Devil" Snips.

Your jobber has the goods. We guarantee the quality.

SMITH & HEMENWAY CO., 150 CHAMBERS ST., N. Y.

31-Inch Forming Roll

Write for Catalog "F"



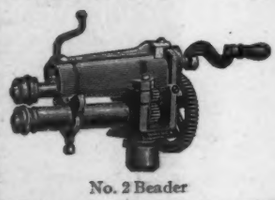
This Forming Roll is built in all standard sizes, with our Patented Opening Device, by means of which it is opened and closed in a few seconds.

We build a complete line of Shears and Punches, all sizes, for hand or belt power.

BERTSCH & CO., Cambridge City, Ind.

TOOLS FOR SHEET METALS

INCLUDING



No. 2 Beader

Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery

MADE BY

Niagara Machine & Tool Works

BUFFALO, N. Y.

THE AMERICAN ARTISAN Ads Bring Results.

THE "RAPID" SLITTING SHEAR

FOR ALL SHEET METAL WORKERS

Cuts No. 16 iron or lighter, any width up to 15 inches. Scale on table. Adjustable Bearings. Best Tool Steel Cutters. Weight about 300 lbs. Made for service. Cuts iron for valleys, ridge roll, gutter, cornice, skylight bars, etc. Very fast.

OTIS L. FULLER GOSHEN, IND.

The New MARVELL
Self - Heating Soldering Iron

is an investment and a necessity. Every tinner, sheet metal worker and roofer knows the advantages of having an iron that is **always hot** and **always the same heat.** ¶ The New Marvell Iron is operated with gasoline and with one filling may be used a whole day at a cost of about two cents a day for fuel. Can you run a firepot on two cents' worth of gasoline? ¶ Be a modern man and use modern tools. Ask for particulars and prices today.

Lyon, Conklin & Co. Inc.
ESTABLISHED 1840
BALTIMORE, MD.

WE ALSO MANUFACTURE
Conductor Pipe, Eaves Trough, Stove Pipe Elbows, Etc.

KEEP YOUR EYE ON THE

Sem

We invite correspondence and investigation for we can interest you and save you money. Write for latest catalog showing improvements.

Burgess Soldering Furnace Co.
Dept. A COLUMBUS, OHIO

"SELF-HEAT" SOLDERING IRON

The **SELF-HEAT** is equipped with a specially designed generator which is absolutely positive in its action. Will work under the most trying conditions. **SELF-HEAT** is always hot and uses the minimum of solder. Can be converted into a blow torch by loosening set screw and removing copper point. *Send for full particulars.*

DOBBINS MFG. CO., Minneapolis, Minn.

"ALWAYS RELIABLE"

No. 31 Brazier Gasoline Torch

Produces the Greatest Heat of any Torch in the World

Patented, Capacity One Quart

It has the most powerful generator of any burner o its size; produces an intense heat and is well adapted for small brazing, such as wires in rubber tires or for expanding rings that are shrunk on. Furnished with wind shield which protects flame.

Hints to Operator: Pump up good pressure in torch; be sure to form box of asbestos around objects to be brazed to retain and reflect the heat and protect other parts. Packed one each in a wooden box, properly labeled. **Price $4.00 each net.**

Manufactured by **OTTO BERNZ, Newark, N. J.**

A poor workman finds fault with his tools. A good workman doesn't. A good workman provides himself with good tools.

Are you equipped with a

"Neuerinit" Gasoline Torch

This Torch melts a one-inch copper rod in 5½ minutes. It will braze copper tubes of 300 mms. diameter and 3 mms. thickness of metal. It is largely used by Sheet Metal Workers and Coppersmiths. Its great efficiency characterizes the "Barthel" line. Look for the name "G. Barthel" on the soldering furnaces and torches you buy. Let your request for folder get out in today's mail.

Globe Gas Light Co.
25-27 UNION STREET
BOSTON, MASS.

Get The Best

The No. 57 Red-Hot Fire Pot is the best value ever offered a mechanic. It is made strong and durable, with heavy galvanized iron tank and patented automatic brass pump. It burns from each side to the center, giving perfect combustion. Will heat 12 lb. coppers and melt a pot of metal at the same time. It is Noiseless, Smokeless and Odorless. Not affected by wind or weather.

No. 57. Red-Hot Fire Pot. Price, Each, $6.00 Net.

Jobbers will supply at factory price or we will ship direct if cash accompanies the order.

Send for our free Catalog.

ASHTON MFG. CO.
13 Alling St. Newark, N. J., U. S. A.

Price Each $4.00 Net

Be Careful In Buying

Fire Pots and Torches to see that they bear the name C. & L. Mfg. Co., **which means the best.** Our many years of experience in the manufacture of gasoline fires enables us to produce Fire Pots and Torches that will please and satisfy the user and that **will soon save their cost in the saving of fuel alone.**

REMEMBER—you buy gasoline often, but a fire pot or torch only occasionally.

All leading jobbers will supply at factory price or we will ship direct if cash accompanies the order. Send for catalog—it's free.

CLAYTON & LAMBERT MFG. CO.
DETROIT, MICH., U. S. A.

TINNERS WANTED

To solicit subscriptions for AMERICAN ARTISAN in their spare time. Write for our liberal cash commission offer. Address Circulation Department.

AMERICAN ARTISAN
537 South Dearborn Street
CHICAGO, ILL.

You Have No Time to Lose

THANKSGIVING IS COMING!

Every housewife will want a **Self-Basting Roaster** to give her **Turkey** the proper roasting, so as to make her dinner a talked about success.

No. 5 OVAL—Opened.
Showing tray inside.

Our oval and oblong **Self-Basting Roasters** are made with **full size inside tray,** insuring just the right **"doneness."** Also convenient to lift out the **roast.**

No. 5 OVAL—Closed.

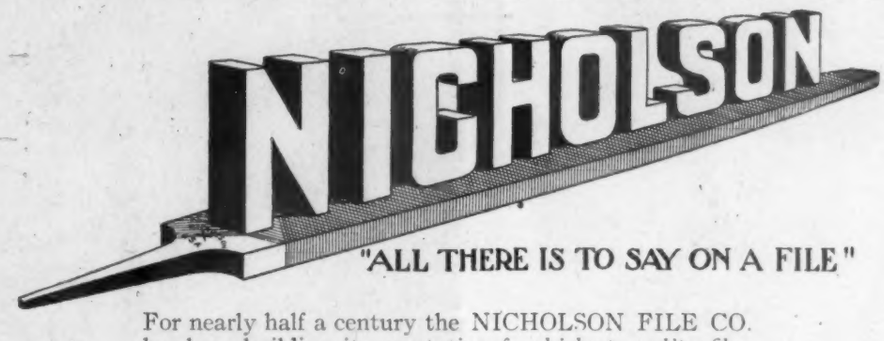
SELF-BASTING ROASTERS are made in the following enamels: Agate, El-an-Ge, White and White, Turquoise and Robin Egg Blue, Oval, Round and Oblong; also in Black Steel Lacquered. The oval roaster is made in two sizes.

Better Hurry and Stock These Roasters Right Now as the Demand is Growing.

Send for catalogues and prices at once

LALANCE & GROSJEAN MFG. CO.

NEW YORK **1900 S. Clark St., CHICAGO, ILL.** **BOSTON**



"ALL THERE IS TO SAY ON A FILE"

For nearly half a century the NICHOLSON FILE CO. has been building its reputation for *highest quality files.*

You will find that from every point of view

Nicholson Files Are Business Builders

All classes of file users know that the NICHOLSON Trade-Mark on a file assures them of the finest steel, sharp-cutting teeth, even temper, and long wearing qualities.

They bring into your store the highest grade workmen, for dealers who handle NICHOLSON Files are invariably *leaders,* and also carry standard articles in other lines.

NICHOLSON U.S.A. (Trade-Mark)

SOLD BY LEADING JOBBERS EVERYWHERE

NICHOLSON U.S.A. (Trade-Mark)

FOR YOU—*A forty-eight years' education on Files in an hour. Read our booklet "FILE FILOSOPHY." Sent FREE on request, with new half-tone catalog.*

Write today.

Nicholson File Co., Providence, R. I.

THE YOUNGSTOWN SHEET AND TUBE COMPANY

YOUNGSTOWN, OHIO.

BUCKEYE FENCE

THE YOUNGSTOWN SHEET AND TUBE COMPANY
NEW PROCESS
PATENTED
YOUNGSTOWN, OHIO.
GALVANIZED SHEETS

WE have prepared an attractively illustrated booklet dealing with the prevention of accidents to our employees. If you have not received one of these booklets we will be glad to mail you one upon request.

DOUBLE REFINED PUDDLED
IRON ROOFING

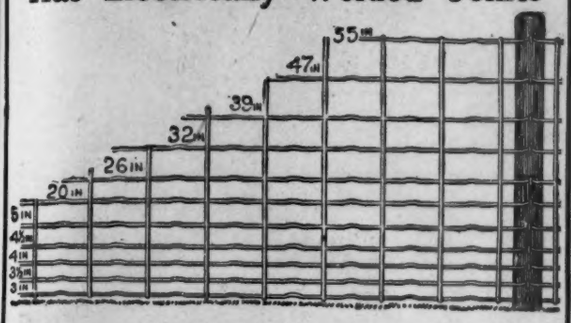
DISTRICT SALES OFFICES

NEW YORK CITY — PHILADELPHIA, PA.
BOSTON, MASS. — CHICAGO, ILL.
PITTSBURG, PA. — DENVER, COLO.
DALLAS, TEX. — SAN FRANCISCO, CAL.

STAR IRON BRAND
PIPE
Y STEEL BRAND

"PITTSBURGH PERFECT" FENCE

Has Electrically Welded Joints



This, together with the fact that both line and stay wires are of the same gauge, account for the long wearing qualities of **"Pittsburgh Perfect"** Fence.

Dealers are making big profits selling "Pittsburgh Perfect" Fence. Are you receiving your share of these profits?

Write for agency and full particulars.

Pittsburgh Steel Co.
PITTSBURGH, PA.

"CINCH" STAYS

What They Are and What They Do

¶ A "Cinch" Stay is a twisted piece of extra strong No. 10 galvanized wire that is augered down over the line wires of a barb-wire fence, preventing the wires from spreading and at the same time making the fence absolutely rigid.

¶ Both the railroads and the Government have found by actual test that a fence equipped with **"Cinch"** Stays requires a fewer number of posts. **That's why** they are using millions of **"Cinch"** Stays on their fences at present.

¶ It won't be long before every farmer in your community will have "Cinch" Stays on his fence too. Why not handle this business? It's yours for the asking. Write us today for samples and prices to the trade. Just at present the field is practically unlimited. Act quickly.

WORTH WIRE WORKS
KOKOMO, INDIANA

AMERICAN PIANO WIRE

REPRESENTS the most advanced ideas in the blending, drawing and finishing of metals for perfect acoustic results.

"Perfected" and "Crown" brands.

We Make

American Wire Rope	Barbed Wire
Aeroplane Wire and Strand	Woven Wire Fencing
Piano Wire	Fence Gates
Mattress Wire	Steel Fence Posts
Weaving Wire	Concrete Reinforcement
Broom Wire	Springs
Fence Wire	Sulphate of Iron
Flat Wire	Poultry Netting
Flat Cold Rolled Steel	Wire Rods
Wire Hoops	Juniata Horse Shoes and Calks
Electrical Wires and Cables	Shafting Cold Drawn Steel
Rail Bonds	Wire of Every Description
Bale Ties, Tacks, Nails, Staples, Spikes	

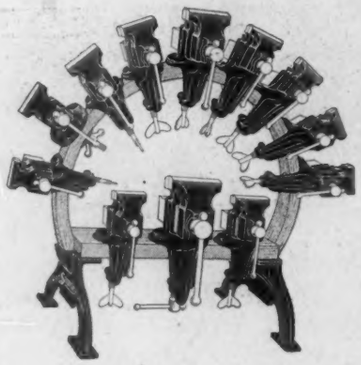
We issue separate catalog for each of these. Gladly furnished upon application.

American Steel & Wire Co.'s Sales Offices

CHICAGO, 72 West Adams Street. NEW YORK, 30 Church Street. WORCESTER, 94 Grove Street. BOSTON, 120 Franklin Street. PITTSBURGH, Frick Building. CINCINNATI, Union Trust Building. CLEVELAND, Western Reserve Bldg. DETROIT, Ford Building. ST. LOUIS, Third Nat'l Bank Bldg. MONTREAL, Bank of Ottawa Bldg. ST. PAUL-MINNEAPOLIS, Pioneer Building, St. Paul. DENVER, First Nat'l Bank Bldg. SALT LAKE CITY, 736 South 3rd West Street.

United States Steel Products Company

Export Department: New York, 30 Church Street.
Pacific Coast Department: San Francisco, Rialto Building. Portland, Sixth and Alder Sts. Seattle, 4th Ave. South & Conn. St. Los Angeles, Jackson & Central Ave.



Stanley Tools

To increase your small Vise business, put in a line of "JERSEY" VISES. Exhibited on the Stand which accompanies each Assortment, they cannot help but attract trade.

We have special literature containing complete description of all styles. Let us send you a supply, also attractive display card.

STANDARD THE WORLD OVER

Stanley Rule & Level Co.
NEW BRITAIN, CONN. U.S.A.

EVERY TOOL GUARANTEED

LUFKIN MEASURING TAPES

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

Our extensive advertising creates a demand that every progressive dealer should be able to satisfy.

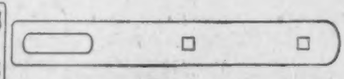
It takes but a minute and a postal to ask for our catalog—*it's more than worth while.*

PLEASE MENTION AMERICAN ARTISAN

THE LUFKIN RULE CO. *SAGINAW, MICHIGAN, U. S. A.*
New York, London, Eng., Windsor, Ont.

"Sure-Catch" Gate Latch

is a positive-lock latch for farm yard gates, barn doors, box stalls, etc. Made of heavy **wrought iron.** It can not break or wear out. Works automatically. Impossible to open door by jarring when once locked. The only one of its kind made. Be sure you get the **"SURE-CATCH."**



Send for trade prices.

Broadbelt Manufacturing Co.
607 Water Street **Baltimore, Md.**

REGAL Sash Cord is always marked with
TWO BLUE STRANDS

This sash cord has been approved by the United States Government and many leading architects. It will outwear the best Chain 3½ times. It is perfect in construction and, therefore, without waste.

Send for the surest test, that made by the Government, and for free samples.

PURITAN CORDAGE MILLS, 1561 Story Ave., Louisville, Ky.

"NEVER-BREAK"

TRADE MARK

"NEVER-BREAK"
Steel Spiders, Griddles and Kettles

NO TIN HANDLES *to come off.*
WILL NOT *Scale Off* like cheap enamel.
WILL NOT *Scorch or Burn* like light fry pans and skillets.
WILL NOT *Absorb Grease or Flavors* like cast iron.

CATALOG FOR THE ASKING.

The Avery Stamping Co.

Sole Manufacturers "NEVER-BREAK" Goods — Cleveland Stock Clay

THE HIGHEST GRADE FILE MADE

DELTA

TRADE MARK DELTA

DELTA FILE WORKS
PHILADELPHIA, PA.
Chicago Office, 108 W. Lake St.
New York Office, 35 Wooster St.

FILES OF QUALITY

FILES

THE FILE YOU WILL EVENTUALLY USE

You Need

a Tinner, Furnace Man or Hardware Clerk? A want ad in

AMERICAN ARTISAN

—that's all that's necessary to solve the problem.

Light Gray Iron Castings

Builders' Hardware, Dampers an Damper Clips, Oil and Gas Stoves, Furnace Lamps, Molasses Gates, Letter Boxes, Hardware Specialties.

WRITE FOR OUR COMPLETE CATALOG

The TAYLOR & BOGGIS FOUNDRY CO.

Cleveland Sixth City — Cleveland Sixth City

ICY-HOT

Carafes Bottles and Jars

Keep Contents either Icy Cold or Steaming Hot for Days

YOU CAN MAKE LARGE SALES—NOW

Soon every one of your customers will be looking for Suitable Christmas gifts.

Nothing is more appropriate than an "ICY-HOT." Take advantage of our extensive national advertising. We will help you sell them.

Every "ICY-HOT" is absolutely guaranteed to do what we claim.

Your profits guaranteed by our restricted price policy.

Send for Illustrated Catalog

Ask for Special Christmas Offer

THE ICY-HOT BOTTLE CO.

133 W. Second Street — CINCINNATI, OHIO

Time to Order

Crown Tree Holders

The only Holder that has stood the test of practical use for 30 years.

Graceful—Attractive—Substantial

Quickly adjusted. Prevents accidents, and with ordinary care lasts a lifetime

ORDER NOW — CHRISTMAS IS COMING

NORTH BROS. MFG. CO., - Philadelphia, Pa., U. S. A.

CINCINNATI IRON FENCE CO.

FREE CATALOGUE — AGENTS WANTED

Largest Iron Fence Factory in Ohio.
Address DEPT "T" for prices. CINCINNATI, OHIO

HARDWARE CLERKS

can make extra money soliciting subscriptions for AMERICAN ARTISAN in their spare time. Very liberal cash commision. No experience necessary. Address Circulation Department AMERICAN ARTISAN, 537 South Dearborn St., Chicago, Illinois.

The Universal Sad Iron Handle

is the only handle that takes a firm grip on the sad iron and fits any and all makes of Mrs. Pott's Sad Irons.

Millions now in use. Big profits for the dealer. Send today for descriptive matter and trade prices.

The Universal Stamping & Mfg. Co. Cleveland Sixth City

Eagle Mop Wringers and Buckets Combined

are known the world over—Janitors. Porters and all who have the care of floors will have no other.

Your Jobber has them. If not, write us and we will supply you.

CAUTION—Dealers will take notice of infringements and imitators.

We Will Protect Our Patent Rights

The Eagle Woodenware Mfg. Co.
Sole Manufacturers and Owners of Patents
Hamilton, Ohio

Vacuum Process.
Without a Dolly.

Operated by Hand Lever Power, Water Motor Power, Electric and Engine Power.

There are many other household washers, but **not** a **Better One** made by a Manufacturer who **sells Washing Machines exclusively** to the Hardware Trade.

Hardware Jobbers Wanted

XXth CENTURY MFG. CO.

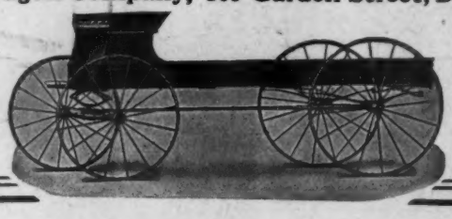
Mansfield, Ohio

DeKalb Quality BUSINESS WAGONS FOR EVERY TRADE

Low-down, short turn, light delivery wagons for Hardware Dealers and Tinners a specialty.

DeKalb Wagon Company, 109 Garden Street, DeKalb, Ill.

Send for new 96-page catalog and our *Special Proposition to Dealers*



We have a co-operative sales plan that will interest you.

ELEVATORS

Improved, Quick and Easy Rising, Steam, Electric and Hand Power.

SEND FOR CIRCULAR

KIMBALL BROS. CO.
1031 Ninth St., COUNCIL BLUFFS, IOWA
Kansas City Office, 717 Commerce Bldg., Kansas City, Mo.

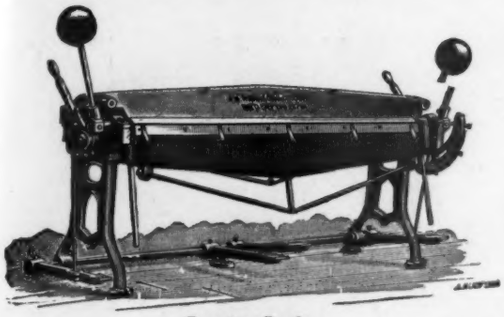
"LION"

Silent Running, Center Lift

ELEVATORS

For Hardware and other Stores. Manufactured by
Franklin Machine Works, St. Paul, Minn.

"Buck Up" is a Slang Term but it means a lot. If you should touch a red-hot iron to an English Butler's Bald Head, he would **"Buck Up"**. If a dealer should employ legitimate but ingenious methods in dealing with catalog-house competition, he would **"Buck Up."** If he should advertise in a well known trade-journal, he would be "Casting His Bread Upon The Waters" —It Would Come Back—He Would **"Buck Up"**



Cornice Brake

WE make a specialty of Cornice Brakes, and build the most up-to-date Cornice Brake now on the market. We can furnish same in any length from 30 inches to 10 feet, and we guarantee our Cornice Brake for No. 20 gauge material and lighter, and with heavy bending attachment for No. 18 gauge.

We also make a complete line of Power Punching Presses.

THE J. M. ROBINSON MFG. CO.

3282 to 3288 Spring Grove Avenue • • • • • CINCINNATI, OHIO

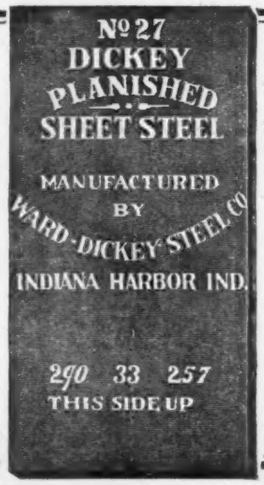
THE ADVANTAGES OF

Genuine Dickey Planished Sheet Steel

¶ Dickey sheets are finished under powerful planishing HAMMERS.

¶ This process toughens the metal, giving it the working qualities of copper. It will not break or crack.

¶ For heavy stamping or die work it cannot be equaled.



¶ It holds color under most intense heat.

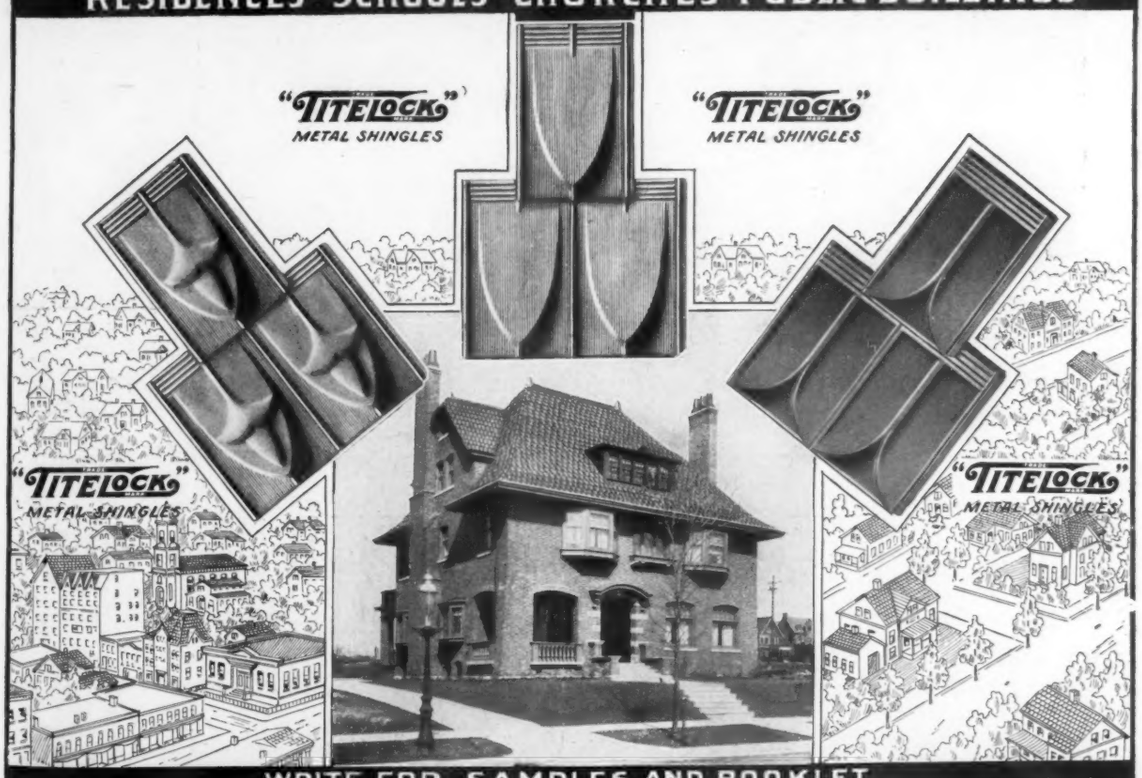
¶ Imported Russia Iron Finish.

¶ Moisture-proof packages insure its reaching consumer in perfect condition.

¶ Send for our comparative tests and trade prices today.

Ward-Dickey Steel Co.
Indiana Harbor, Indiana

THE CROWNING FEATURE OF RESIDENCES · SCHOOLS · CHURCHES · PUBLIC BUILDINGS



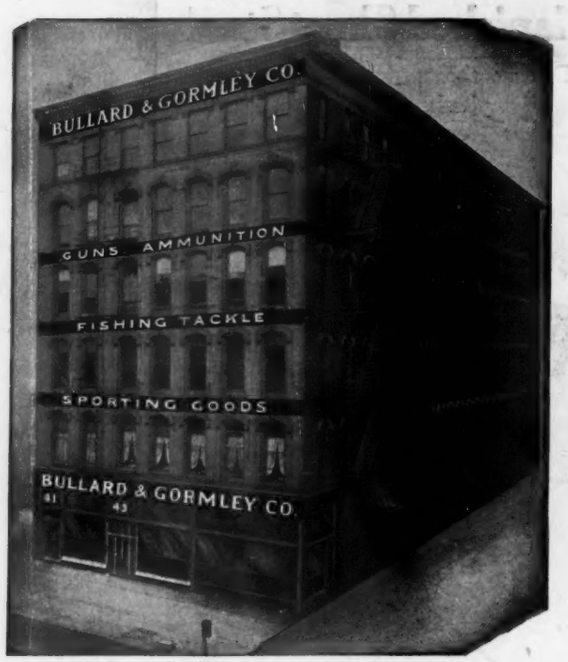
WRITE FOR SAMPLES AND BOOKLET

MILWAUKEE CORRUGATING COMPANY

BRANCH AT KANSAS CITY · MO. - - - MILWAUKEE · WIS.

WHOLESALE HARDWARE

of the Highest Class at Popular Prices



We issue complete catalogues of the following goods:

Sporting Goods & Fishing Tackle, Cutlery, Mechanics' Tools, Builders' Hardware, General Hardware

Send for our low prices and let us fill your wants

BULLARD & GORMLEY CO.

173-175 N. State St. 8-10 Couch Pl. 7-9 E. Lake Street

CHICAGO, ILL.